

EXHIBIT K

LITHIUMHUB'S INFRINGEMENT ANALYSIS

U.S. Patent No. 9,412,994 – Tracker Lithium Gen2 TLi52-DC

Independent Claims 1 and 14

LithiumHub provides evidence of infringement of at least independent claims 1 and 14 of U.S. Patent No. 9,412,994 (hereinafter “the ’994 patent”) by Defendant. In support thereof, LithiumHub provides the following claim charts.

“Accused Products” as used herein refers to at least Tracker Lithium Gen2 TLi52-DC and the Accused Products enumerated in the Complaint. These claim charts demonstrate Defendant’s infringement by comparing each element of the asserted claims to corresponding components, aspects, and/or features of the Accused Products. These claim charts are not intended to constitute an expert report on infringement. These claim charts include information provided by way of example, and not by way of limitation.

Unless otherwise noted, LithiumHub contends that Defendant indirectly infringes the ’994 patent in violation of 35 U.S.C. § 271(a) by inducing others to sell, offer to sell, make, use, and/or import the Accused Products. The following exemplary analysis demonstrates that infringement. Unless otherwise noted, LithiumHub further contends that the evidence below supports a finding of indirect infringement under 35 U.S.C. §§ 271(b) and/or (c), in conjunction with other evidence of liability under one or more of those subsections. Defendant makes, uses, sells, imports, or offers for sale in the United States, or has made, used, sold, imported, or offered for sale in the past, without authority, or induces others to make, use, sell, import, or offer for sale in the United States, or has induced others to make, use, sell, import, or offer for sale in the past, without authority products, equipment, or services that infringe claims 1 and 14 of the ’994 patent, including without limitation, the Accused Products.

Unless otherwise noted, LithiumHub believes and contends that each element of each claim asserted herein is literally met by the Accused Products. However, to the extent that Defendant attempts to allege that any asserted claim element is not literally met, LithiumHub believes and contends that such elements are met under the doctrine of equivalents. More specifically, in its investigation and analysis of the Accused Products, LithiumHub did not identify any substantial differences between the elements of the patent claims and the corresponding features of the Accused Products, as set forth herein. In each instance, the identified feature of the Accused Products performs at least substantially the same function in substantially the same way to achieve substantially the same result as the corresponding claim element.

To the extent the chart of an asserted claim relies on evidence about certain specifically identified Accused Products, LithiumHub asserts that, on information and belief, any similarly functioning Accused Product also infringes the charted claim. LithiumHub reserves the right to amend this infringement analysis based on other products made, used, sold, imported, or offered for sale by Defendant or its customers. LithiumHub further reserves the right to amend this infringement analysis by adding, subtracting, or otherwise modifying content in the “Accused Products” column of each chart.

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)								
<p>Claim 1</p> <p>[1p] A battery pack for driving an electrical device in a 12 volt to 120 volt operating system, said battery pack having a positive terminal and a negative terminal, comprising:</p>	<p>To the extent the preamble is limiting, the Tracker Lithium Gen2 12.8V 52AH is a battery pack for driving an electrical device in a 12 volt to 120 volt operating system.</p> <div data-bbox="551 285 1495 1428">  <p>SIZING/SELECTION</p> <p>Q: Will Tracker Lithium batteries work with my Trolling motor? Tracker Lithium deep-cycle batteries 52A and greater are designed to work with all production Trolling Motors. Please consult your specification sheet for larger current drains.</p> <p>Q: What is the minimum quantity of batteries needed for my trolling motor or boat motor?</p> <table border="0"> <tr> <td>• 12V trolling motor</td> <td>1 battery</td> </tr> <tr> <td>• 24V trolling motor</td> <td>2 batteries</td> </tr> <tr> <td>• 36V trolling motor</td> <td>3 batteries</td> </tr> <tr> <td>• 12V Starting Battery</td> <td>1 battery</td> </tr> </table> <p>Q: Do I need to use the Lithium Starting battery if I purchase Lithium deep-cycle batteries? No, but we recommend the Tracker Lithium starting batteries for extended accessory runtime and faster charging than lead batteries.</p> <p>Q: Can I use different types (Flooded, AGM, Lithium) batteries in my boat for Deep-Cycle applications? Yes, if there is a defective lithium unit, then adding a Flooded or AGM battery short-term in the battery bank will not cause any damage to either setup, but you cannot mix Lithium and Lead in series connections for long-term use. Also, ensure you use the same SKU battery per bank.</p> <p>Q: Can I use different types (Flooded, AGM, Lithium) batteries in starting applications. Yes, adding a flooded or AGM (Lead) battery in parallel can protect the lithium battery and boat components from momentary defective peak alternator current & voltage.</p> <p><i>Please note: The lead battery should connect to the lithium battery in parallel as a stand-alone battery. Then, install the lithium battery as the main battery with all wires, charger, alternator, starter, etc.... connected to the lithium battery terminals. (See series and parallel diagram on page 2)</i></p> <p>Q: Are my Tracker Lithium batteries drop-in replacements? Yes, Tracker Lithium batteries have physically similar dimensions as Lead and AGM.</p> <p>Deep-Cycle options: The 52A battery is in the U1 size (riding lawnmower size). The 60, 80, and 100 options are all group 24. Starting: The 100A starting battery is a group 31.</p> <p>INSTALLATION</p> <p>Q: How should I install my Tracker Lithium batteries? The battery is a direct replacement and should be installed the same as the existing batteries.</p> <p>INSTALLATION (cont'd)</p> <p>Q: What size cables/wiring do I need to connect the Tracker Lithium batteries? Refer to the Original Equipment Manufacturer's specifications for wire size required to operate your electrical components and motors.</p> <p>CHARGING</p> <p>Q: What charger do you recommend for marine applications? We recommend using a multi-bank charger to ensure each battery is balanced correctly and receives a full charge. Chargers with a lithium charge profile are required; Lead battery chargers may charge the lithium battery, but doing so will harm the lithium cells lifespan. Please consult your Tracker Lithium dealer for approved lithium charger models.</p> <p>Dual Pro and Noco Charging brands with lithium settings are the approved options for Tracker Lithium. There are other brands that state they can "charge" lithium, but there could be functionality concerns, such as not having the ability to charge a battery that's 100% discharged. We will update this list with additional chargers as they become available.</p> <p>Q: Can I use any charge profile to charge my batteries? No, AGM or Lead charging profiles can charge a lithium battery which is not fully depleted, but it will harm lithium cells and reduce the battery's overall lifespan.</p> <p>Lithium chargers use algorithms that properly balance and charge the lithium cells.</p> <p>Q: Can I charge multiple batteries in series or parallel with a single set of charge leads (single-bank charger)? Yes, but each battery must receive a full charge independently before connecting in series or parallel. It is strongly recommended to use a multi-bank charger to ensure proper charging and wake-up functions.</p> <p>Q: How long does it take for the batteries to be fully charged? The charging time for your batteries depends on the following: the percent discharged, the charger's output current (Amps), and the total capacity of your battery. Typically, a 10A charger will fully charge a depleted 100A battery in 10 hours.</p> <p>Q: Do I need to charge my Tracker Lithium batteries after each use? It is recommended to fully charge your batteries after each use to ensure full capacity for subsequent uses. Storing lithium batteries under 20% charged can damage the cells or BMS which reduces their overall lifespan.</p> </div>	• 12V trolling motor	1 battery	• 24V trolling motor	2 batteries	• 36V trolling motor	3 batteries	• 12V Starting Battery	1 battery
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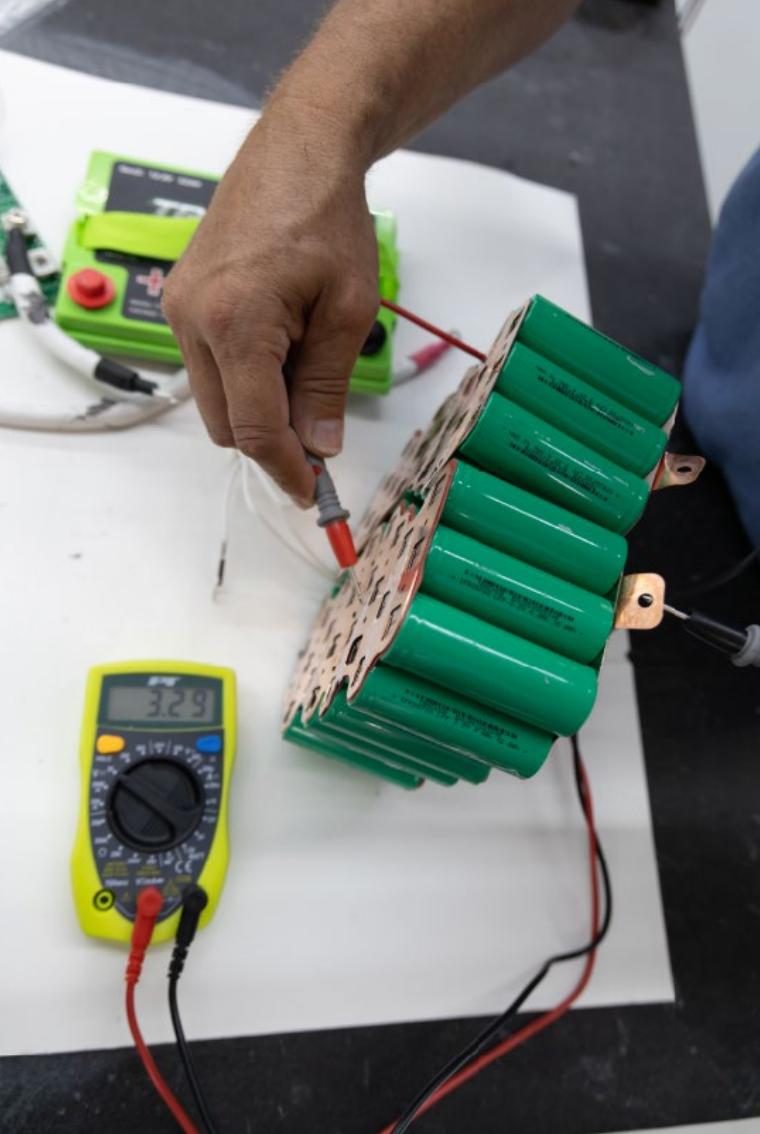
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>https://assets.basspro.com/image/upload/v1681327624/PDFs/other/other_Tracker_Lithium_Gen2_FAQ_Sheet.pdf (annotated).</p>  <p>To the extent the preamble is limiting, the Tracker Lithium Gen2 12.8V 52AH has a positive terminal (10) and a negative terminal (11).</p>

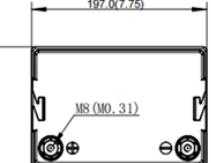
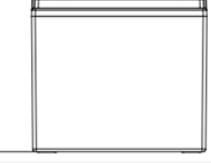
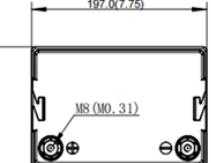
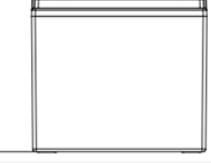
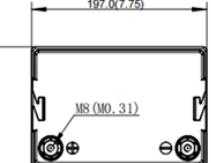
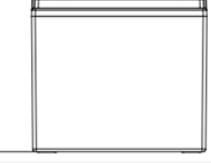
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	
<p>[1a] a battery pack housing having at least a first portion and a mating second portion;</p>	<p>The Tracker Lithium Gen2 12.8V 52AH has a battery pack housing (1) with a first portion (1A) and a mating second portion (1B).</p> 

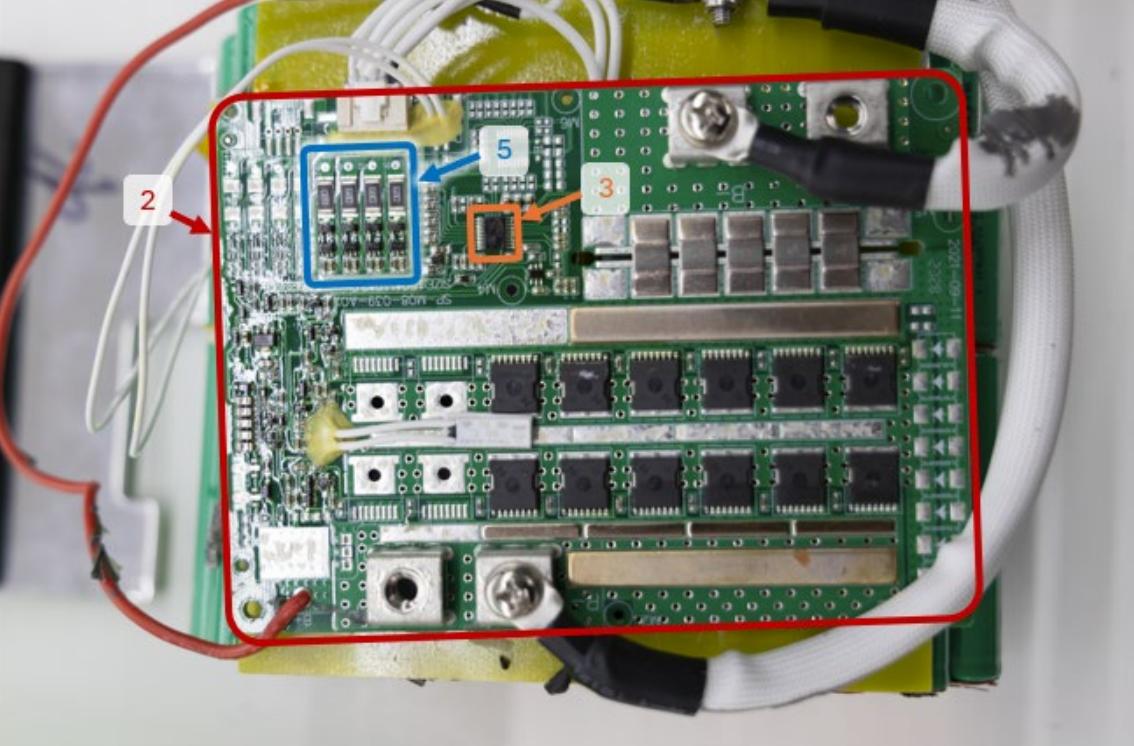
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[1b] at least one lithium-based rechargeable cell within said housing, each such cell having a positive pole and a negative pole;</p>	<p>The Tracker Lithium Gen2 12.8V 52AH comprises at least one lithium-based rechargeable cell within said housing.</p> 

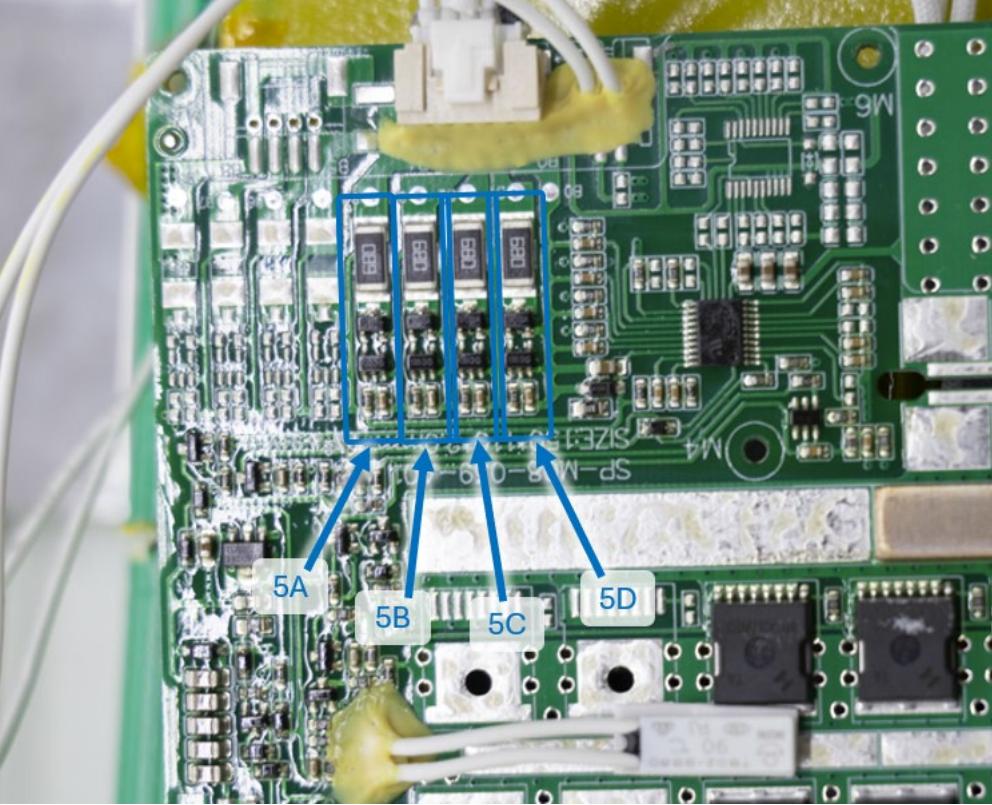
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p>Each such cell of the Tracker Lithium Gen2 12.8V 52AH has a positive pole and a negative pole.</p>

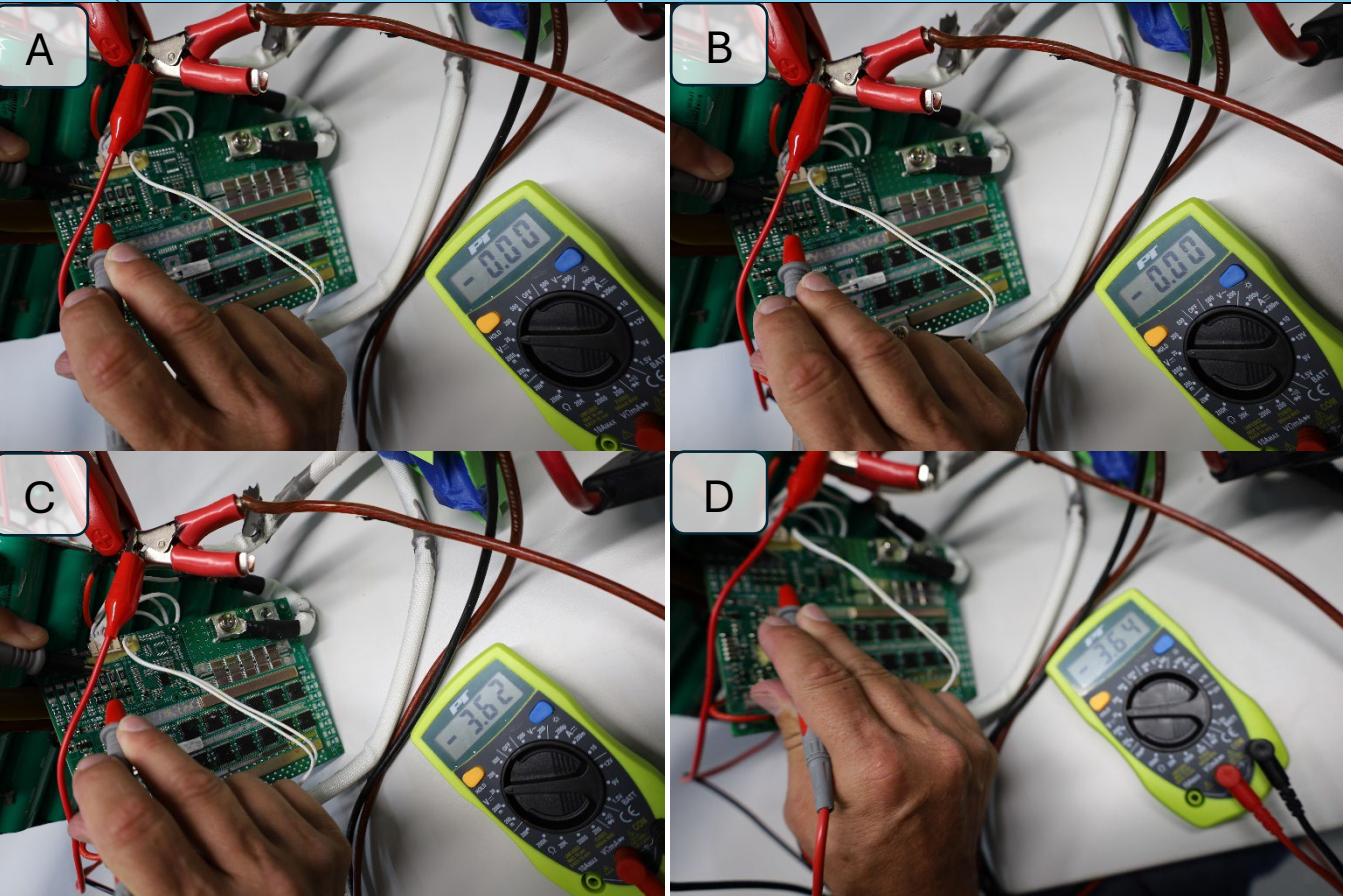
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="540 643 1917 752">Additionally, for example, the polarity of each unit in a cell of the Tracker Lithium Gen2 12.8V 52AH was demonstrated as having a positive pole and a negative pole by using a multimeter to measure a voltage potential across the positive pole and a negative pole of a cell.</p>

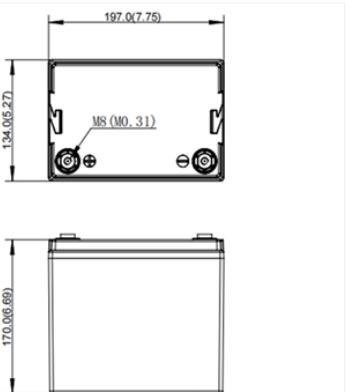
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
[1c-i] a circuit board within said housing configured to balance each individual cell within said	 <p>The Tracker Lithium Gen2 12.8V 52AH comprises a circuit board (2) within said housing configured to balance (5) each individual cell within said housing (e.g., 5A-5D).</p>

<p>US9,412,994 Claim Element</p> <p>housing, and having a cutoff function incorporated therein,</p>	<p>Tracker (Tracker Lithium Gen2 12.8V 52AH)</p>  <p>TRACKER LITHIUM TLi/WR52-DC Gen2</p> <table border="1" data-bbox="551 425 1501 1307"> <tbody> <tr> <td colspan="2">ELECTRICAL SPECIFICATIONS</td> </tr> <tr> <td>Nominal Voltage</td> <td>12.8V</td> </tr> <tr> <td>Nominal Capacity</td> <td>52Ah</td> </tr> <tr> <td>Capacity @ 25A</td> <td>156 min</td> </tr> <tr> <td>Resistance</td> <td>$\leq 30 \text{ m}\Omega$ @ 50% SOC</td> </tr> <tr> <td>Efficiency</td> <td>99%</td> </tr> <tr> <td>Self Discharge</td> <td><3% per Month</td> </tr> <tr> <td>Maximum Modules in Series</td> <td>4</td> </tr> <tr> <td colspan="2">DISCHARGE SPECIFICATIONS</td> </tr> <tr> <td>Maximum Continuous Discharge Current</td> <td>60A</td> </tr> <tr> <td>Peak Discharge Current</td> <td>200A (2s)</td> </tr> <tr> <td>BMS Discharge Current Cut-Off</td> <td>200A \pm 50A (2 \pm 1 ms)</td> </tr> <tr> <td>Recommended Low Voltage Disconnect</td> <td>10V</td> </tr> <tr> <td>BMS Discharge Voltage Cut-Off</td> <td>9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)</td> </tr> <tr> <td>Reconnect Voltage</td> <td>10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)</td> </tr> <tr> <td>Short Circuit Protection</td> <td>200-800 μA</td> </tr> <tr> <td colspan="2">TEMPERATURE SPECIFICATIONS</td> </tr> <tr> <td>Discharge Temperature</td> <td>-4 to 140 °F (-20 to 60 °C)</td> </tr> <tr> <td>Charge Temperature</td> <td>-4 to 113 °F (-20 to 45 °C)</td> </tr> <tr> <td>Storage Temperature</td> <td>23 to 95 °F (-5 to 35 °C)</td> </tr> <tr> <td>BMS High Temperature Cut-Off</td> <td>167 °F (75 °C)</td> </tr> <tr> <td>Reconnect Temperature</td> <td>122 °F (50 °C)</td> </tr> <tr> <td colspan="2">MECHANICAL SPECIFICATIONS</td> </tr> <tr> <td>Dimensions (L x W x H)</td> <td>7.75 X 5.27 X 6.69" 197 X 134 X 170 MM</td> </tr> <tr> <td>Weight</td> <td>15.7 lbs (7.1 kg)</td> </tr> <tr> <td>Terminal Type</td> <td>M8 x 1.25 x 2mm</td> </tr> <tr> <td>Terminal Torque</td> <td>80 - 100 in-lbs (9 - 11 N-m)</td> </tr> <tr> <td>Case Material</td> <td>ABS</td> </tr> <tr> <td>Enclosure Protection</td> <td>IP67</td> </tr> <tr> <td>Cell Type - Chemistry</td> <td>Cylindrical - LiFePO4</td> </tr> <tr> <td colspan="2">CHARGE SPECIFICATIONS</td> </tr> <tr> <td>Recommended Charge Current</td> <td>10A</td> </tr> <tr> <td>Maximum Charge Current</td> <td>50A</td> </tr> <tr> <td>Charge Current -4 to 32 °F (-10 to 0 °C)</td> <td>$\leq 0.03 \text{ C}$</td> </tr> <tr> <td>Charge Current -4 to 14 °F (-20 to -10 °C)</td> <td>$\leq 0.02 \text{ C}$</td> </tr> <tr> <td>Recommended Charge Voltage</td> <td>14.2 V - 14.6 V</td> </tr> <tr> <td>BMS Charge Voltage Cut-Off</td> <td>15V (3.75 \pm 0.05 vpc) (1.5 \pm 1.0 s)</td> </tr> <tr> <td>Reconnect Voltage</td> <td>14.4V (3.6 \pm 0.05 vpc)</td> </tr> <tr> <td>Balancing Voltage</td> <td>14.2V (3.55 \pm 0.05 vpc)</td> </tr> <tr> <td colspan="2">COMPLIANCE SPECIFICATIONS</td> </tr> <tr> <td>Certifications</td> <td>UN 38.3 & CE (BATTERY) UL1642 (CELLS) (FILE# MH64443) IEC62133 (CELLS)</td> </tr> <tr> <td>Shipping Classification</td> <td>UN 3480, CLASS 9</td> </tr> <tr> <td colspan="2">DIMENSIONAL SPECIFICATIONS</td> </tr> <tr> <td colspan="2">   </td> </tr> </tbody> </table> <p>https://assets.basspro.com/image/upload/v1684850673/PDFs/other/other_Tracker_Lithium_Gen2_Spec_Sheet.pdf (annotated).</p>	ELECTRICAL SPECIFICATIONS		Nominal Voltage	12.8V	Nominal Capacity	52Ah	Capacity @ 25A	156 min	Resistance	$\leq 30 \text{ m}\Omega$ @ 50% SOC	Efficiency	99%	Self Discharge	<3% per Month	Maximum Modules in Series	4	DISCHARGE SPECIFICATIONS		Maximum Continuous Discharge Current	60A	Peak Discharge Current	200A (2s)	BMS Discharge Current Cut-Off	200A \pm 50A (2 \pm 1 ms)	Recommended Low Voltage Disconnect	10V	BMS Discharge Voltage Cut-Off	9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)	Reconnect Voltage	10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)	Short Circuit Protection	200-800 μ A	TEMPERATURE SPECIFICATIONS		Discharge Temperature	-4 to 140 °F (-20 to 60 °C)	Charge Temperature	-4 to 113 °F (-20 to 45 °C)	Storage Temperature	23 to 95 °F (-5 to 35 °C)	BMS High Temperature Cut-Off	167 °F (75 °C)	Reconnect Temperature	122 °F (50 °C)	MECHANICAL SPECIFICATIONS		Dimensions (L x W x H)	7.75 X 5.27 X 6.69" 197 X 134 X 170 MM	Weight	15.7 lbs (7.1 kg)	Terminal Type	M8 x 1.25 x 2mm	Terminal Torque	80 - 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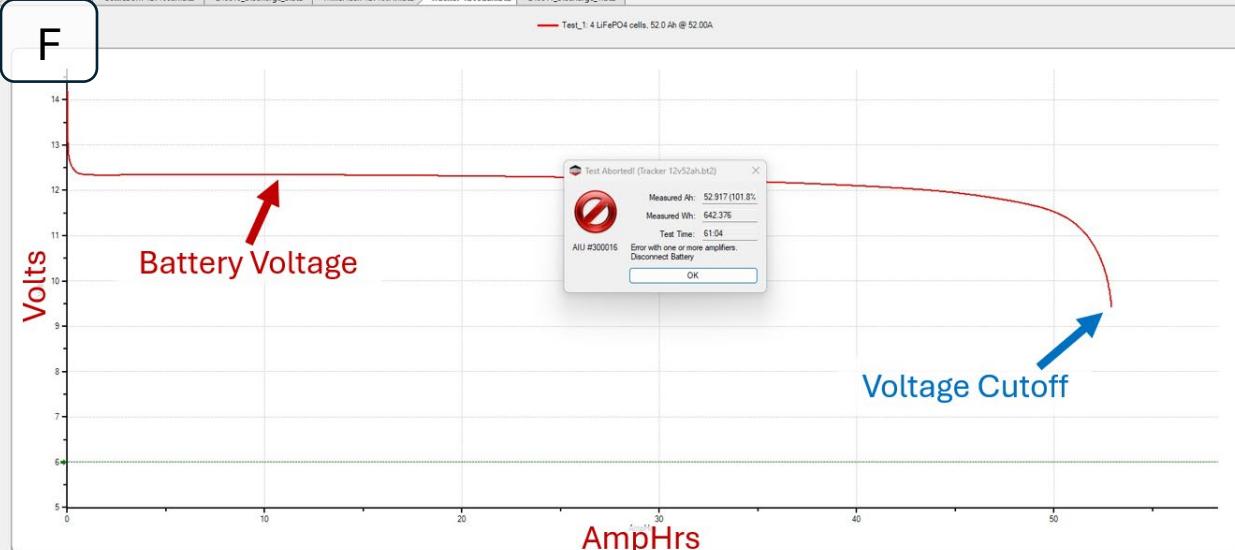
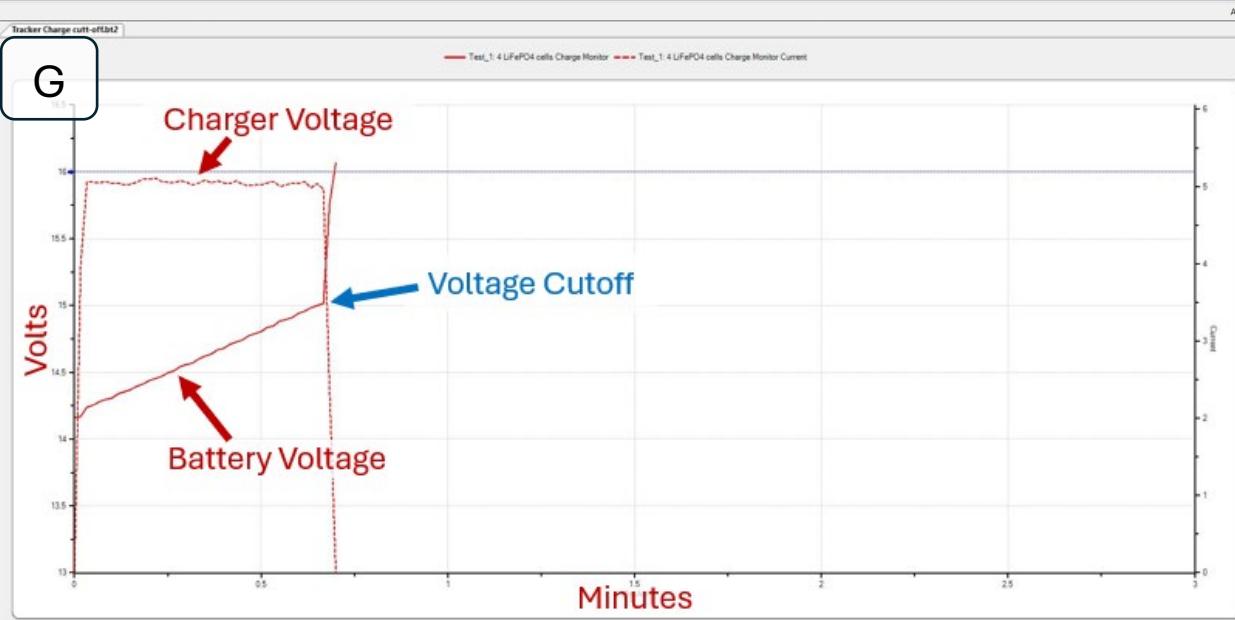
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	

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	 <p data-bbox="544 980 1902 1165">For example, as demonstrated by using a multimeter and testing the voltage across each of the cell balancing circuits 5A-5D when two of the cells were discharged relative to the remaining two cells of the Tracker Lithium Gen2 12.8V 52AH a voltage across the two respective balancing circuits was observed (see photos C and D below) while the remaining two balancing circuits remained inactive (see photos A and B below).</p>

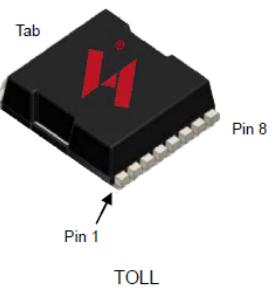
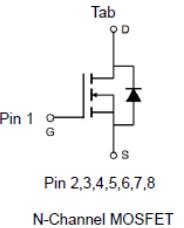
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="544 1068 1881 1139">The Tracker Lithium Gen2 12.8V 52AH comprises a circuit board having a cutoff function incorporated therein.</p>

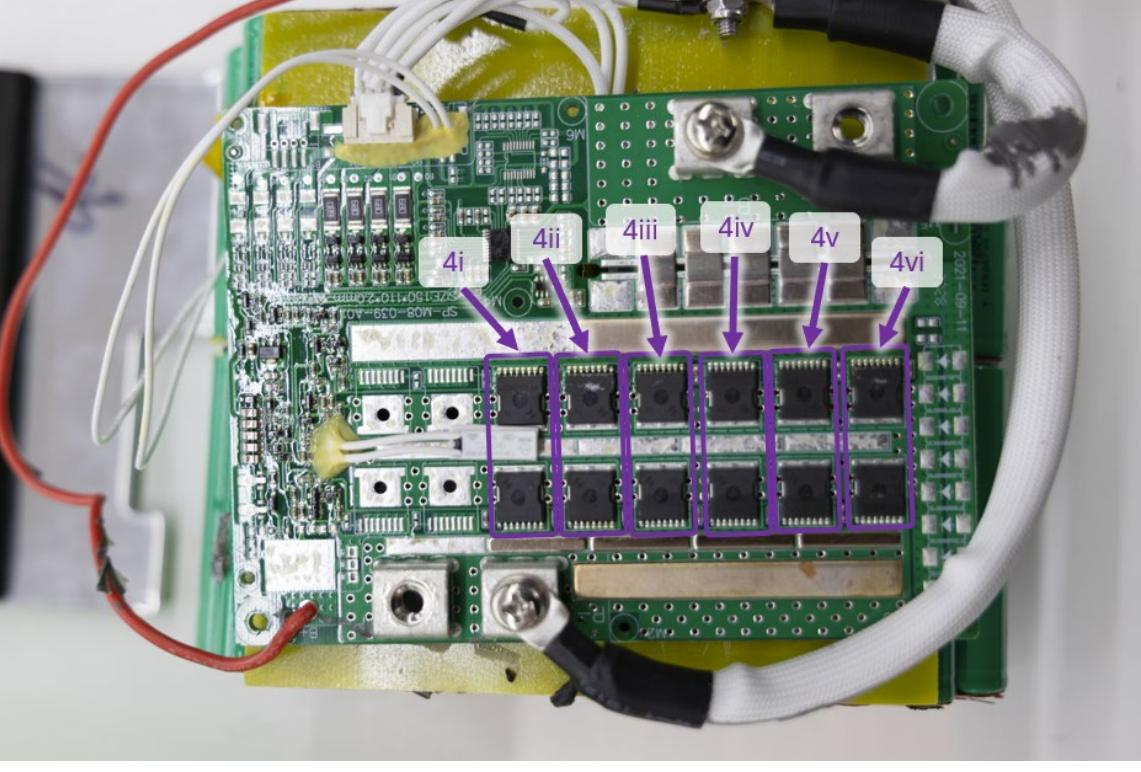
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	<div data-bbox="544 138 1516 1313">  <p>TRACKER LITHIUM TLi/WR52-DC Gen2</p> <p>ELECTRICAL SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Nominal Voltage</td><td>12.8V</td></tr> <tr><td>Nominal Capacity</td><td>52Ah</td></tr> <tr><td>Capacity @ 25A</td><td>156 min</td></tr> <tr><td>Resistance</td><td>$\leq 30 \text{ m}\Omega$ @ 50% SOC</td></tr> <tr><td>Efficiency</td><td>99%</td></tr> <tr><td>Self Discharge</td><td><3% per Month</td></tr> <tr><td>Maximum Modules in Series</td><td>4</td></tr> </tbody> </table> <p>DISCHARGE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Maximum Continuous Discharge Current</td><td>60A</td></tr> <tr><td>Peak Discharge Current</td><td>200A (2s)</td></tr> <tr><td>BMS Discharge Current Cut-Off</td><td>200A \pm 50A (2 \pm 1 ms)</td></tr> <tr><td>Recommended Low Voltage Disconnect</td><td>10V</td></tr> <tr><td>BMS Discharge Voltage Cut-Off</td><td>9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)</td></tr> <tr><td>Reconnect Voltage</td><td>10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)</td></tr> <tr><td>Short Circuit Protection</td><td>200-800 μA</td></tr> </tbody> </table> <p>TEMPERATURE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Discharge Temperature</td><td>-4 to 140 °F (-20 to 60 °C)</td></tr> <tr><td>Charge Temperature</td><td>-4 to 113 °F (-20 to 45 °C)</td></tr> <tr><td>Storage Temperature</td><td>23 to 95 °F (-5 to 35 °C)</td></tr> <tr><td>BMS High Temperature Cut-Off</td><td>167 °F (75 °C)</td></tr> <tr><td>Reconnect Temperature</td><td>122 °F (50 °C)</td></tr> </tbody> </table> <p>MECHANICAL SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Dimensions (L x W x H)</td><td>7.75 X 5.27 X 6.69" 197 X 134 X 170 MM</td></tr> <tr><td>Weight</td><td>15.7 lbs (7.1 kg)</td></tr> <tr><td>Terminal Type</td><td>M8 x 1.25 x 2mm</td></tr> <tr><td>Terminal Torque</td><td>80 - 100 in-lbs (9 - 11 N-m)</td></tr> <tr><td>Case Material</td><td>ABS</td></tr> <tr><td>Enclosure Protection</td><td>IP67</td></tr> <tr><td>Cell Type - Chemistry</td><td>Cylindrical - LiFePO4</td></tr> </tbody> </table> <p>CHARGE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Recommended Charge Current</td><td>10A</td></tr> <tr><td>Maximum Charge Current</td><td>50A</td></tr> <tr><td>Charge Current 14 to 32 °F (-10 to 0 °C)</td><td>$\leq 0.03 \text{ C}$</td></tr> <tr><td>Charge Current -4 to 14 °F (-20 to -10 °C)</td><td>$\leq 0.02 \text{ C}$</td></tr> <tr><td>Recommended Charge Voltage</td><td>14.2 V - 14.6 V</td></tr> <tr><td>BMS Charge Voltage Cut-Off</td><td>15V (3.75 \pm 0.05 vpc) (1.5 \pm 1.0 s)</td></tr> <tr><td>Reconnect Voltage</td><td>14.4V (3.6 \pm 0.05 vpc)</td></tr> <tr><td>Balancing Voltage</td><td>14.2V (3.55 \pm 0.05 vpc)</td></tr> </tbody> </table> <p>COMPLIANCE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Certifications</td><td>UN 38.3 & CE (BATTERY) UL1642 (CELLS) (FILE# MH64443) IEC62133 (CELLS)</td></tr> <tr><td>Shipping Classification</td><td>UN 3480, CLASS 9</td></tr> </tbody> </table> <p>DIMENSIONAL SPECIFICATIONS</p>  </div> <p>https://assets.basspro.com/image/upload/v1684850673/PDFs/other/other_Tracker_Lithium_Gen2_Spec_Sheet.pdf (annotated).</p>	Nominal Voltage	12.8V	Nominal Capacity	52Ah	Capacity @ 25A	156 min	Resistance	$\leq 30 \text{ m}\Omega$ @ 50% SOC	Efficiency	99%	Self Discharge	<3% per Month	Maximum Modules in Series	4	Maximum Continuous Discharge Current	60A	Peak Discharge Current	200A (2s)	BMS Discharge Current Cut-Off	200A \pm 50A (2 \pm 1 ms)	Recommended Low Voltage Disconnect	10V	BMS Discharge Voltage Cut-Off	9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)	Reconnect Voltage	10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)	Short Circuit Protection	200-800 μ A	Discharge Temperature	-4 to 140 °F (-20 to 60 °C)	Charge Temperature	-4 to 113 °F (-20 to 45 °C)	Storage Temperature	23 to 95 °F (-5 to 35 °C)	BMS High Temperature Cut-Off	167 °F (75 °C)	Reconnect Temperature	122 °F (50 °C)	Dimensions (L x W x H)	7.75 X 5.27 X 6.69" 197 X 134 X 170 MM	Weight	15.7 lbs (7.1 kg)	Terminal Type	M8 x 1.25 x 2mm	Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)	Case Material	ABS	Enclosure Protection	IP67	Cell Type - Chemistry	Cylindrical - LiFePO4	Recommended Charge Current	10A	Maximum Charge Current	50A	Charge Current 14 to 32 °F (-10 to 0 °C)	$\leq 0.03 \text{ C}$	Charge Current -4 to 14 °F (-20 to -10 °C)	$\leq 0.02 \text{ C}$	Recommended Charge Voltage	14.2 V - 14.6 V	BMS Charge Voltage Cut-Off	15V (3.75 \pm 0.05 vpc) (1.5 \pm 1.0 s)	Reconnect Voltage	14.4V (3.6 \pm 0.05 vpc)	Balancing Voltage	14.2V (3.55 \pm 0.05 vpc)	Certifications	UN 38.3 & CE (BATTERY) UL1642 (CELLS) (FILE# MH64443) IEC62133 (CELLS)	Shipping Classification	UN 3480, CLASS 9
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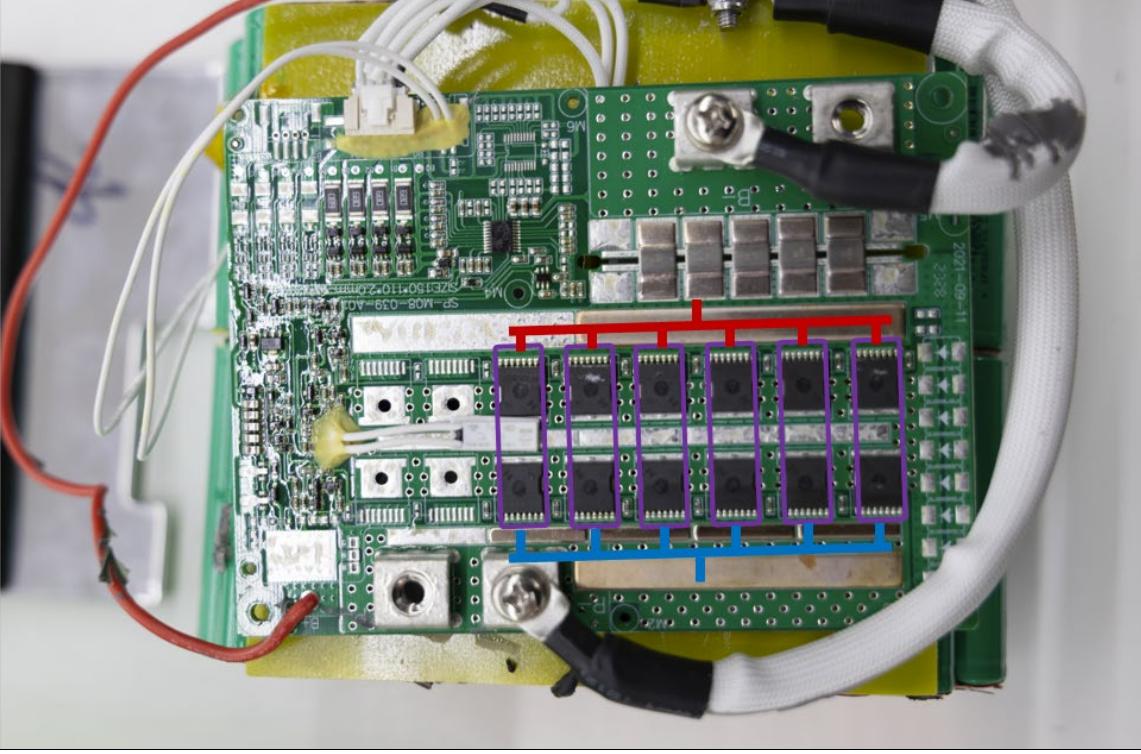
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>For example, as demonstrated by connecting the battery terminals of the Tracker Lithium Gen2 12.8V 52AH to a computerized battery analyzer (see photo E below), the cutoff functionality is demonstrated by the termination of electrical current when the Tracker Lithium Gen2 12.8V 52AH was discharged below its rated voltage (see photo F below). Similarly, the cutoff functionality is also demonstrated by the termination of electrical current when the Tracker Lithium Gen2 12.8V 52AH was charged above its rated voltage (see photo G below).</p> <p data-bbox="572 376 608 409">E</p> 

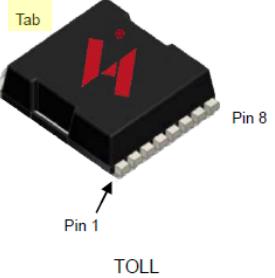
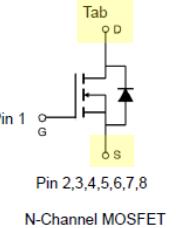
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	
[1c-ii]	The circuit board of the Tracker Lithium Gen2 12.8V 52AH includes a plurality of pairs of solid state switches.

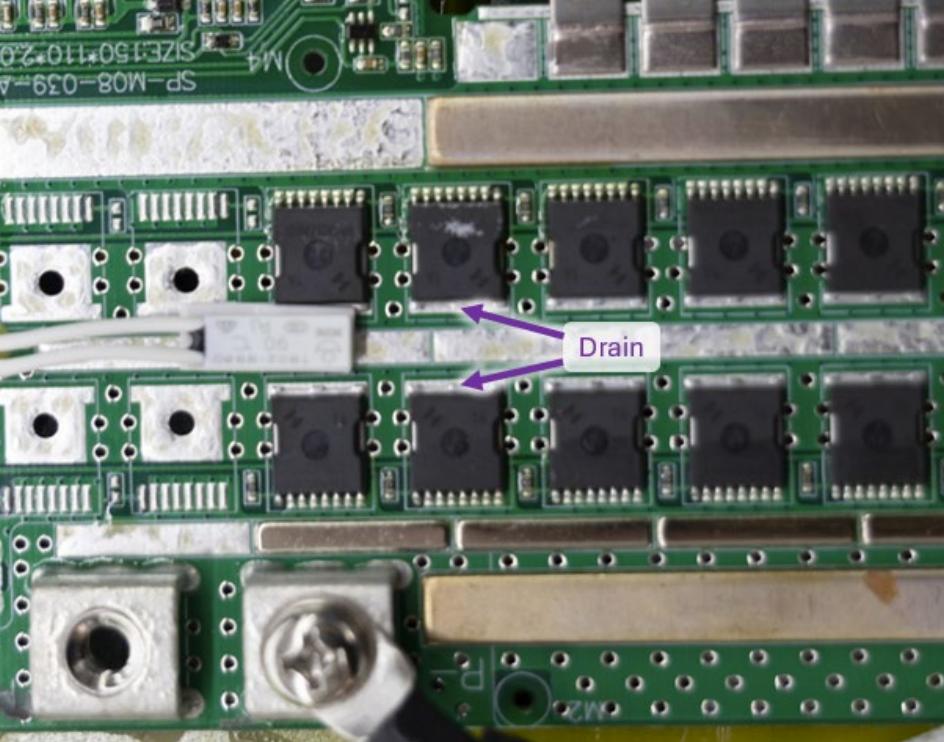
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>said circuit board including a plurality of pairs of solid state switches with each pair of solid state switches connected in a parallel configuration to another pair of solid state switches,</p>	

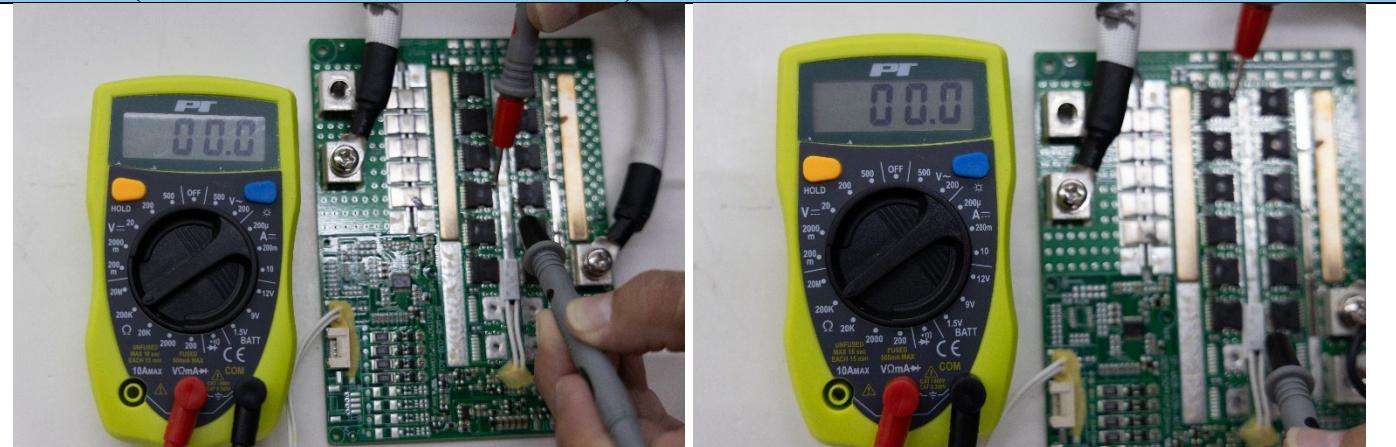
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>HYG015N10NS1TA</p> <p>N-Channel Enhancement Mode MOSFET</p> <p>Feature</p> <ul style="list-style-type: none"> • 100V/380A • $R_{DS(ON)}=1.2\text{ m}\Omega(\text{typ.}) @ V_{GS} = 10V$ • 100% Avalanche Tested • Reliable and Rugged • Halogen-Free Devices Available (RoHS Compliant) <p>Pin Description</p>  <p>Tab Pin 8 Pin 1 TOLL</p> <p>Applications</p> <ul style="list-style-type: none"> • Switching application • Power management for inverter systems • Battery management  <p>Tab D Pin 1 G S Pin 2,3,4,5,6,7,8 N-Channel MOSFET</p> <p>Huayi-HYG015N10NS1TA datasheet.pdf (annotated).</p> <p>The solid state switches of the Gen2 12.8V 52AH are arranged in pairs (e.g., 4i-4vi) with each pair of solid state switches connected in a parallel configuration to another pair of solid state switches.</p>

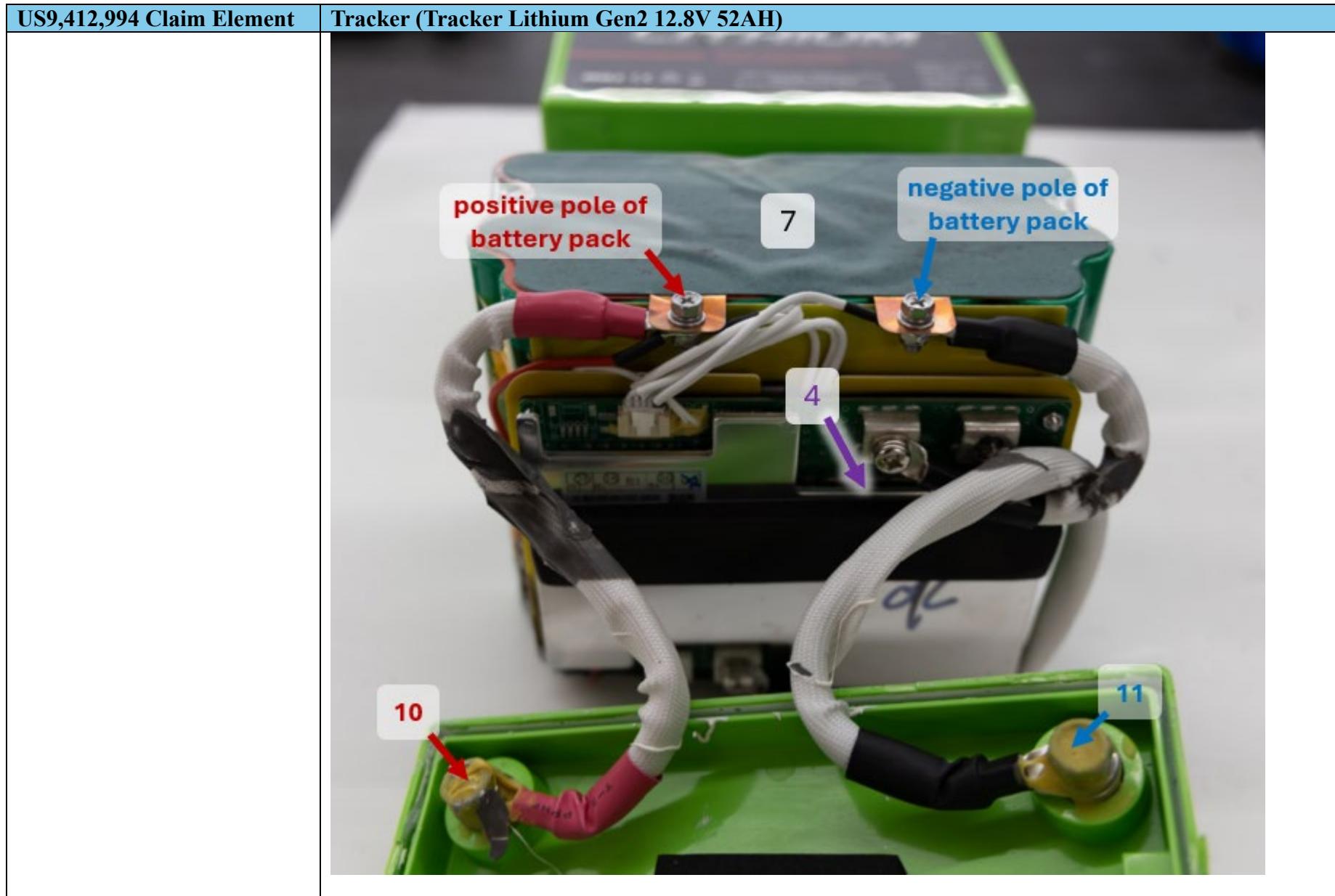
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	

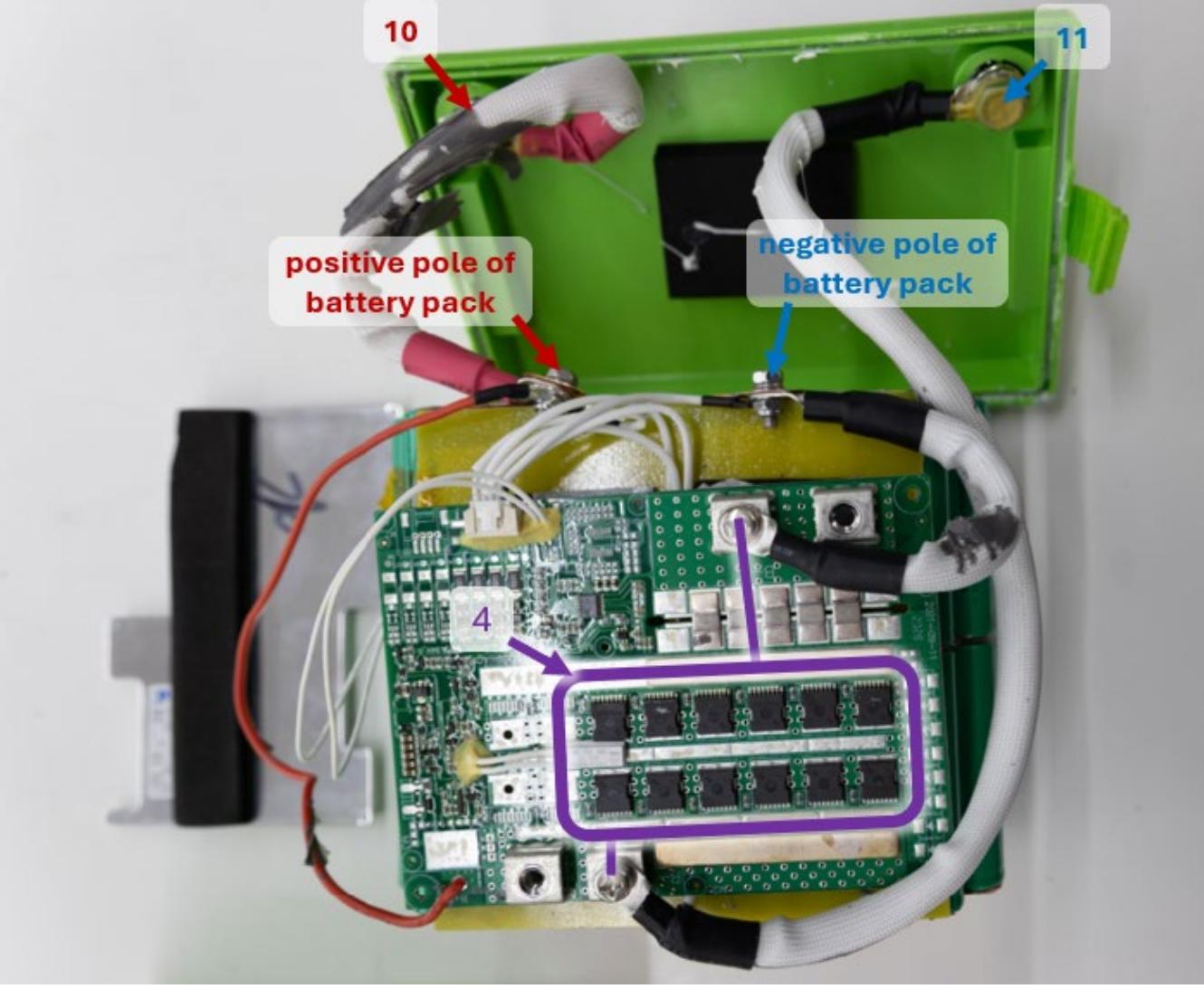
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[1c-iii] each switch having a source and a drain, the switches of a pair of solid state switches being configured such that either the drains of the switches are connected or the sources of the switches are connected; and</p>	

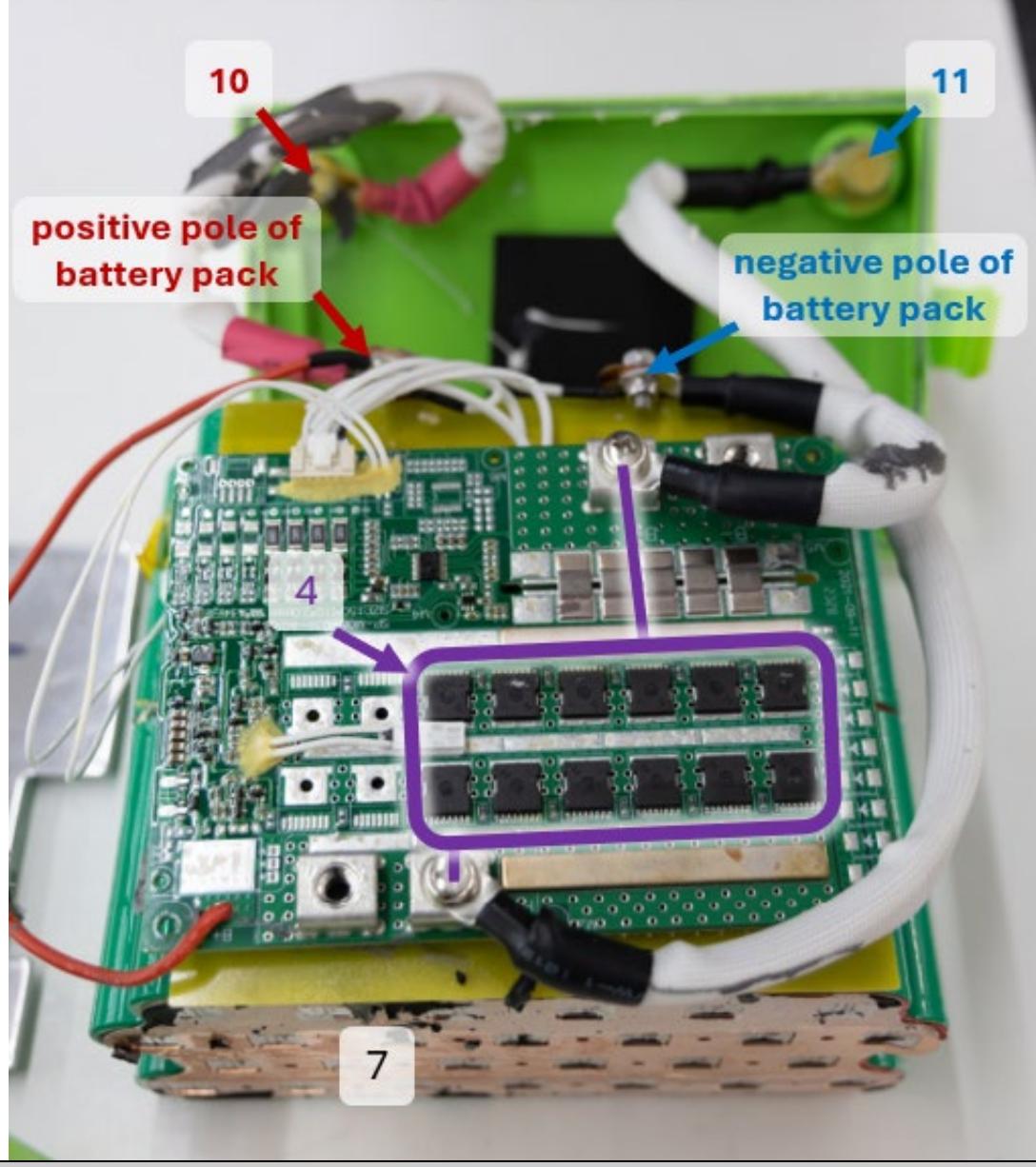
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>HYG015N10NS1TA</p> <p>HUAYI Microelectronics</p> <p>N-Channel Enhancement Mode MOSFET</p> <p>Feature</p> <ul style="list-style-type: none"> • 100V/380A • $R_{DS(ON)}=1.2\text{ m}\Omega(\text{typ.}) @ V_{GS} = 10V$ • 100% Avalanche Tested • Reliable and Rugged • Halogen-Free Devices Available (RoHS Compliant) <p>Pin Description</p>  <p>Pin 1 TOLL Pin 8 Tab</p> <p>Applications</p> <ul style="list-style-type: none"> • Switching application • Power management for inverter systems • Battery management  <p>Pin 1 G Pin 2,3,4,5,6,7,8 S Pin 8 D N-Channel MOSFET</p> <p>Huayi-HYG015N10NS1TA datasheet.pdf (annotated).</p> <p>The switches of a pair of solid state switches of the Tracker Lithium Gen2 12.8V 52AH are configured such that the drains of the switches are connected.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p>For example, as demonstrated by testing the electrical continuity using a multimeter, the drains of the switches of the Tracker Lithium Gen2 12.8V 52AH are connected, as shown by the nominal resistance measured between the drains of opposed MOSFETs.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[1d] said parallel configuration of the plurality of solid state switches (4) of the Tracker Lithium Gen2 12.8V 52AH are connected in series with the one or more cells (7) between the positive (10) and negative terminals (11) of the battery pack.</p>	

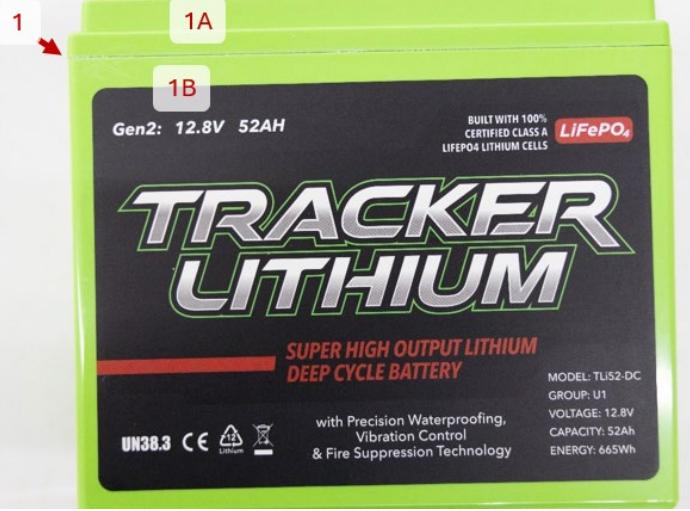


US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="868 421 1121 502">positive pole of battery pack</p> <p data-bbox="1374 393 1649 474">negative pole of battery pack</p> <p data-bbox="1058 817 1079 833">4</p> <p data-bbox="973 1454 1058 1486">10</p> <p data-bbox="1712 172 1733 189">11</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="534 148 1622 1374">A photograph of a green printed circuit board (PCB) for a battery tracker. The board is populated with various electronic components, including a central integrated circuit, resistors, capacitors, and connectors. A purple rectangular box highlights a specific area on the right side of the board, containing several black rectangular components, likely representing a battery cell or module. Callouts with arrows point to specific parts: 'positive pole of battery pack' (red arrow, red text) points to a red wire connection; 'negative pole of battery pack' (blue arrow, blue text) points to a black wire connection; '4' (purple arrow, purple text) points to the purple-outlined area; and '7' (white arrow, white text) points to the bottom edge of the board. A red number '10' is in the top left corner, and a blue number '11' is in the top right corner.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)								
<p>[14p]</p> <p>A battery pack for driving an electrical device in a 1 volt to 120 volt operating system, said battery pack comprising:</p>	<p>To the extent the preamble is limiting, the Tracker Lithium Gen2 12.8V 52AH is a battery pack for driving an electrical device in a 1 volt to 120 volt operating system.</p>  <p>SIZING/SELECTION</p> <p>Q: Will Tracker Lithium batteries work with my Trolling motor? Tracker Lithium deep-cycle batteries 52A and greater are designed to work with all production Trolling Motors. Please consult your specification sheet for larger current drains.</p> <p>Q: What is the minimum quantity of batteries needed for my trolling motor or boat motor?</p> <table border="0"> <tr> <td>• 12V trolling motor</td> <td>1 battery</td> </tr> <tr> <td>• 24V trolling motor</td> <td>2 batteries</td> </tr> <tr> <td>• 36V trolling motor</td> <td>3 batteries</td> </tr> <tr> <td>• 12V Starting Battery</td> <td>1 battery</td> </tr> </table> <p>Q: Do I need to use the Lithium Starting battery if I purchase Lithium deep-cycle batteries? No, but we recommend the Tracker Lithium starting batteries for extended accessory runtime and faster charging than lead batteries.</p> <p>Q: Can I use different types (Flooded, AGM, Lithium) batteries in my boat for Deep-Cycle applications? Yes, if there is a defective lithium unit, then adding a Flooded or AGM battery short-term in the battery bank will not cause any damage to either setup, but you cannot mix Lithium and Lead in series connections for long-term use. Also, ensure you use the same SKU battery per bank.</p> <p>Q: Can I use different types (Flooded, AGM, Lithium) batteries in starting applications. Yes, adding a flooded or AGM (Lead) battery in parallel can protect the lithium battery and boat components from momentary defective peak alternator current & voltage.</p> <p><i>Please note: The lead battery should connect to the lithium battery in parallel as a stand-alone battery. Then, install the lithium battery as the main battery with all wires, charger, alternator, starter, etc.... connected to the lithium battery terminals. (See series and parallel diagram on page 2)</i></p> <p>Q: Are my Tracker Lithium batteries drop-in replacements? Yes, Tracker Lithium batteries have physically similar dimensions as Lead and AGM.</p> <p>Deep-Cycle options: The 52A battery is in the U1 size (riding lawnmower size). The 60, 80, and 100 options are all group 24. Starting: The 100A starting battery is a group 31.</p> <p>INSTALLATION</p> <p>Q: How should I install my Tracker Lithium batteries? The battery is a direct replacement and should be installed the same as the existing batteries.</p> <p>INSTALLATION (cont'd)</p> <p>Q: What size cables/wiring do I need to connect the Tracker Lithium batteries? Refer to the Original Equipment Manufacturer's specifications for wire size required to operate your electrical components and motors.</p> <p>CHARGING</p> <p>Q: What charger do you recommend for marine applications? We recommend using a multi-bank charger to ensure each battery is balanced correctly and receives a full charge. Chargers with a lithium charge profile are required; Lead battery chargers may charge the lithium battery, but doing so will harm the lithium cells lifespan. Please consult your Tracker Lithium dealer for approved lithium charger models.</p> <p>Dual Pro and Noco Charging brands with lithium settings are the approved options for Tracker Lithium. There are other brands that state they "charge" lithium, but there could be functionality concerns, such as not having to the ability to charge a battery that's 100% discharged. We will update this list with additional chargers as they become available.</p> <p>Q: Can I use any charge profile to charge my batteries? No. AGM or Lead charging profiles can charge a lithium battery which is not fully depleted, but it will harm lithium cells and reduce the battery's overall lifespan.</p> <p>Lithium chargers use algorithms that properly balance and charge the lithium cells.</p> <p>Q: Can I charge multiple batteries in series or parallel with a single set of charge leads (single-bank charger)? Yes, but each battery must receive a full charge independently before connecting in series or parallel. It is strongly recommended to use a multi-bank charger to ensure proper charging and wake-up functions.</p> <p>Q: How long does it take for the batteries to be fully charged? The charging time for your batteries depends on the following: the percent discharged, the charger's output current (Amps), and the total capacity of your battery. Typically, a 10A charger will fully charge a depleted 100A battery in 10 hours.</p> <p>Q: Do I need to charge my Tracker Lithium batteries after each use? It is recommended to fully charge your batteries after each use to ensure full capacity for subsequent uses. Storing lithium batteries under 20% charged can damage the cells or BMS which reduces their overall lifespan.</p>	• 12V trolling motor	1 battery	• 24V trolling motor	2 batteries	• 36V trolling motor	3 batteries	• 12V Starting Battery	1 battery
• 12V trolling motor	1 battery								
• 24V trolling motor	2 batteries								
• 36V trolling motor	3 batteries								
• 12V Starting Battery	1 battery								

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>https://assets.basspro.com/image/upload/v1681327624/PDFs/other/other_Tracker_Lithium_Gen2_FAQ_Sheet.pdf (annotated).</p> 
<p>[14a]</p> <p>a battery pack housing having at least first and second mating portions, said housing having a positive terminal and a negative terminal;</p>	<p>The Tracker Lithium Gen2 12.8V 52AH includes a battery pack housing (1) having at least first (1A) and second mating portions (1B).</p>

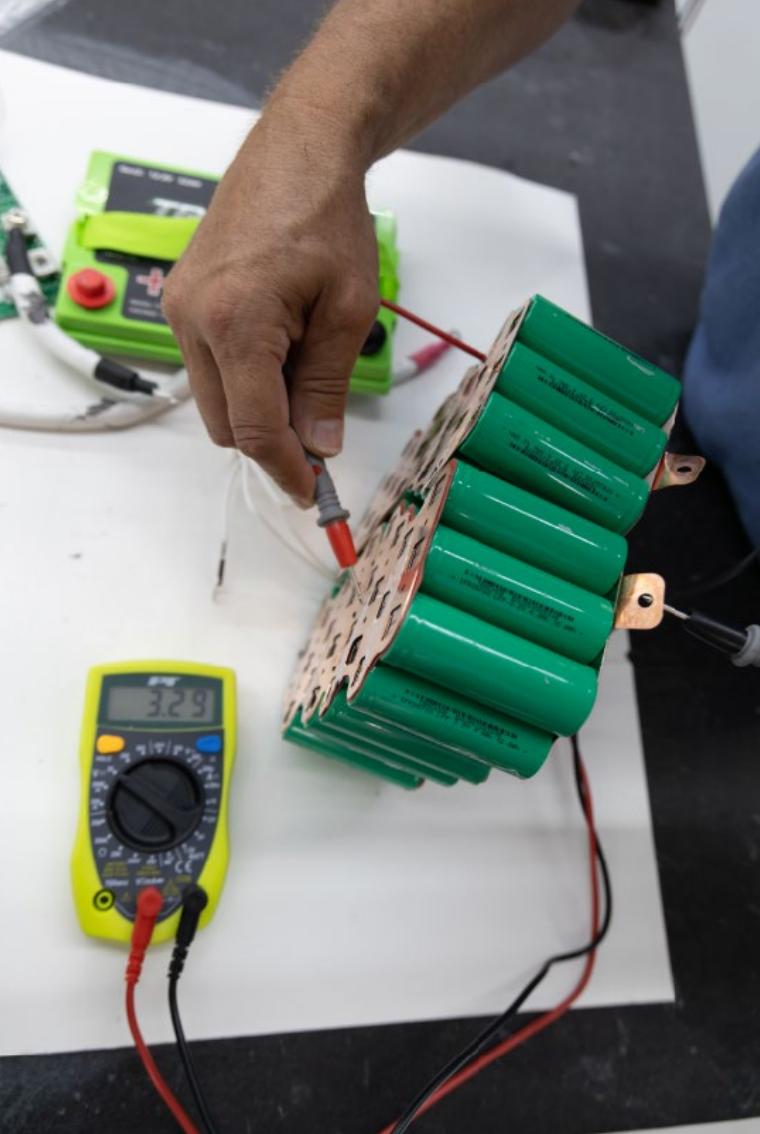
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	  <p data-bbox="544 687 1926 758">The housing of the Tracker Lithium Gen2 12.8V 52AH has a positive terminal (10) and a negative terminal (11).</p>

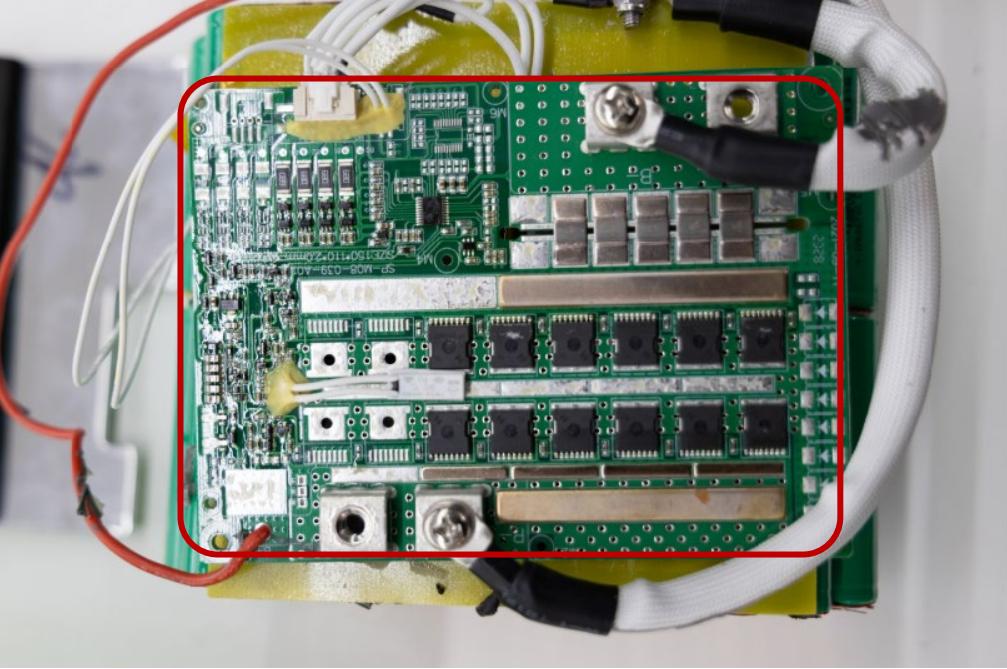
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	
<p>[14b] at least one lithium-based rechargeable cell within said housing, said cell having a positive pole and a negative pole;</p>	<p>The Tracker Lithium Gen2 12.8V 52AH includes at least one lithium-based rechargeable cell within said housing.</p>

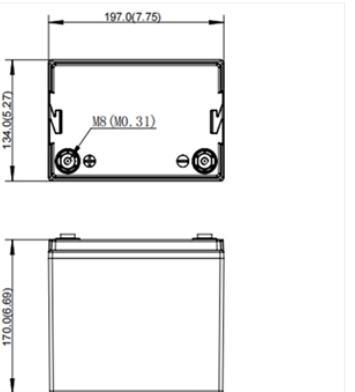
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	

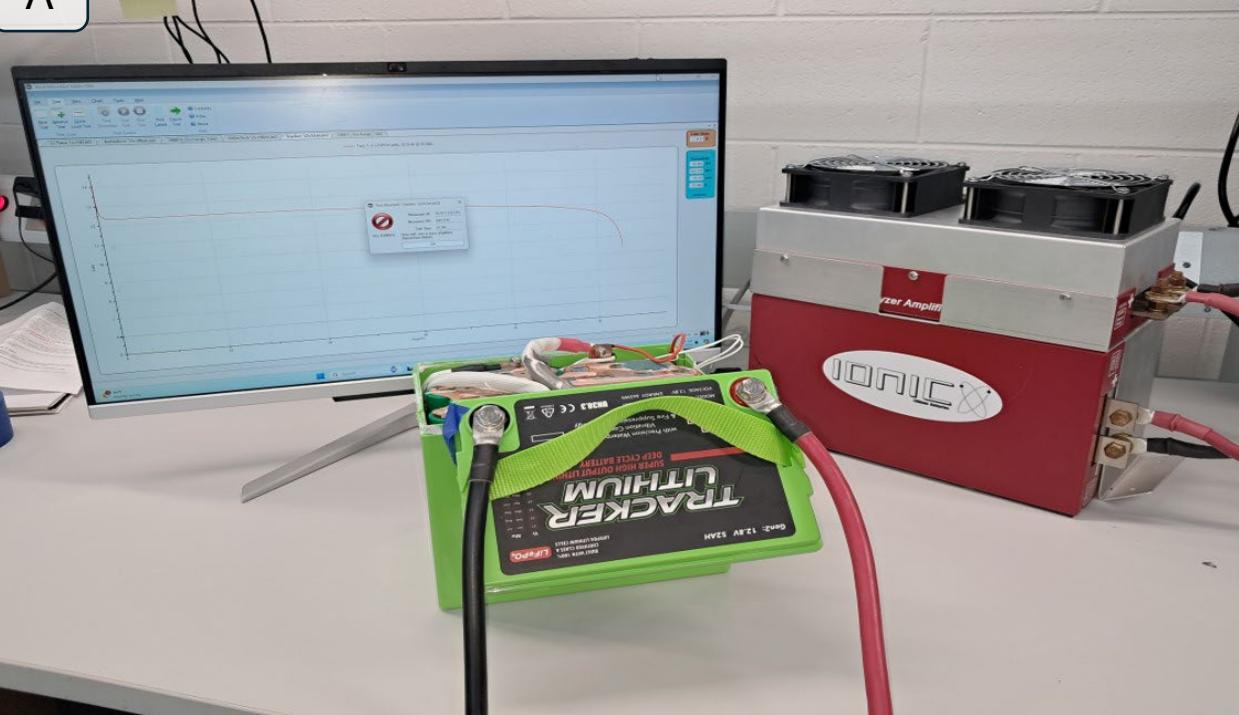
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p>The at least one lithium-based rechargeable cell of the Tracker Lithium Gen2 12.8V 52AH has a positive pole and a negative pole.</p>

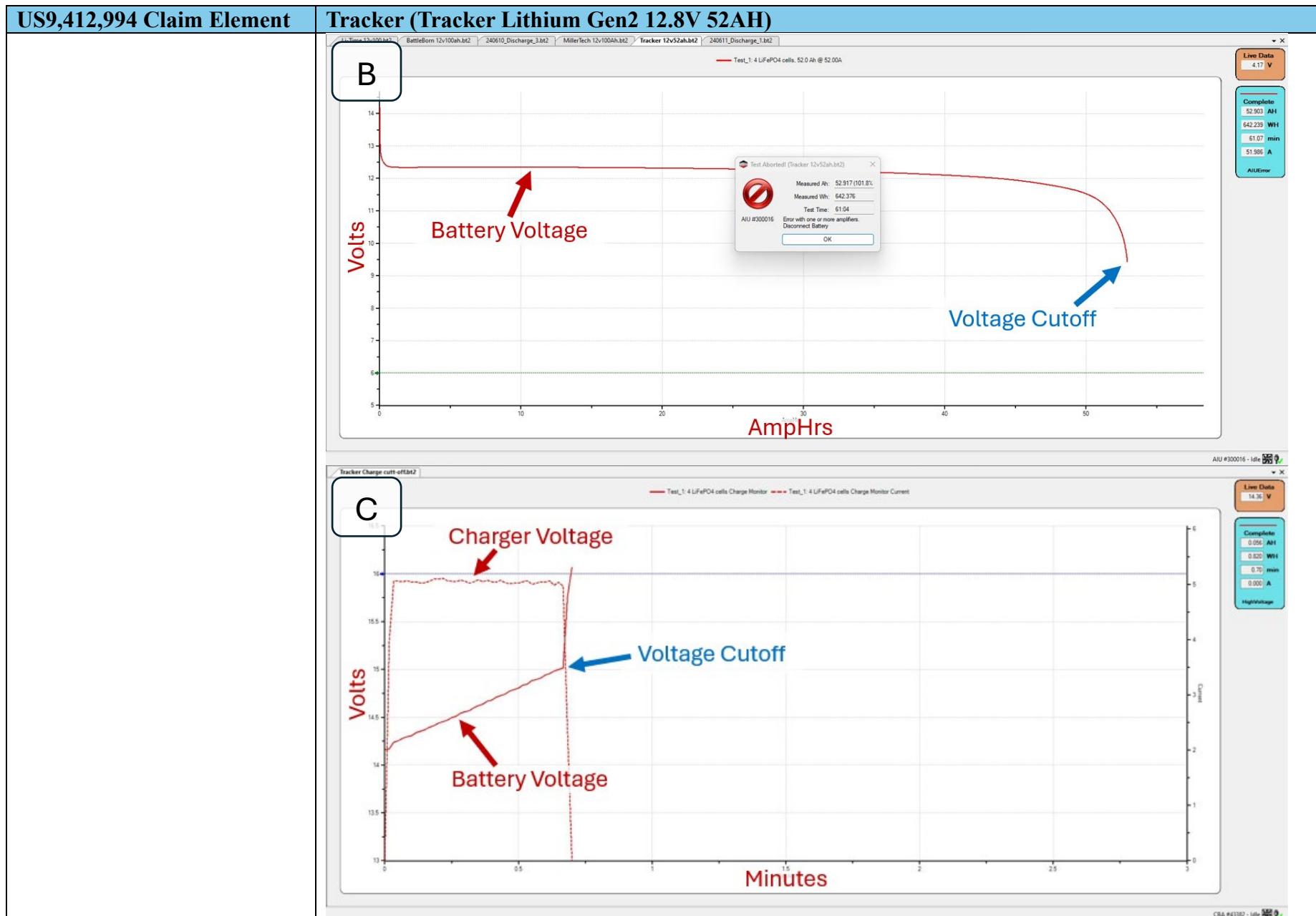
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="551 646 1930 752">Additionally, for example, the polarity of each unit in a cell of the Tracker Lithium Gen2 12.8V 52AH was demonstrated as having a positive pole and a negative pole by using a multimeter to measure a voltage potential across the positive pole and a negative pole of a cell.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	
[14c-i] a circuit board within said housing having a cutoff function incorporated therein,	The Tracker Lithium Gen2 12.8V 52AH comprises a circuit board within the housing.

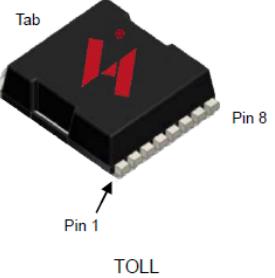
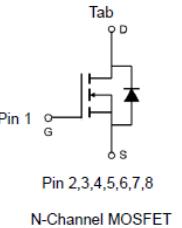
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="551 850 1902 926">The Tracker Lithium Gen2 12.8V 52AH comprises a circuit board having a cutoff function incorporated therein.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)																																																																								
	<div data-bbox="544 138 1516 1313">  <p>TRACKER LITHIUM TLi/WR52-DC Gen2</p> <p>ELECTRICAL SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Nominal Voltage</td><td>12.8V</td></tr> <tr><td>Nominal Capacity</td><td>52Ah</td></tr> <tr><td>Capacity @ 25A</td><td>156 min</td></tr> <tr><td>Resistance</td><td>$\leq 30 \text{ m}\Omega$ @ 50% SOC</td></tr> <tr><td>Efficiency</td><td>99%</td></tr> <tr><td>Self Discharge</td><td><3% per Month</td></tr> <tr><td>Maximum Modules in Series</td><td>4</td></tr> </tbody> </table> <p>DISCHARGE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Maximum Continuous Discharge Current</td><td>60A</td></tr> <tr><td>Peak Discharge Current</td><td>200A (2s)</td></tr> <tr><td>BMS Discharge Current Cut-Off</td><td>200A \pm 50A (2 \pm 1 ms)</td></tr> <tr><td>Recommended Low Voltage Disconnect</td><td>10V</td></tr> <tr><td>BMS Discharge Voltage Cut-Off</td><td>9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)</td></tr> <tr><td>Reconnect Voltage</td><td>10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)</td></tr> <tr><td>Short Circuit Protection</td><td>200-800 μA</td></tr> </tbody> </table> <p>TEMPERATURE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Discharge Temperature</td><td>-4 to 140 °F (-20 to 60 °C)</td></tr> <tr><td>Charge Temperature</td><td>-4 to 113 °F (-20 to 45 °C)</td></tr> <tr><td>Storage Temperature</td><td>23 to 95 °F (-5 to 35 °C)</td></tr> <tr><td>BMS High Temperature Cut-Off</td><td>167 °F (75 °C)</td></tr> <tr><td>Reconnect Temperature</td><td>122 °F (50 °C)</td></tr> </tbody> </table> <p>MECHANICAL SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Dimensions (L x W x H)</td><td>7.75 X 5.27 X 6.69" 197 X 134 X 170 MM</td></tr> <tr><td>Weight</td><td>15.7 lbs (7.1 kg)</td></tr> <tr><td>Terminal Type</td><td>M8 x 1.25 x 2mm</td></tr> <tr><td>Terminal Torque</td><td>80 - 100 in-lbs (9 - 11 N-m)</td></tr> <tr><td>Case Material</td><td>ABS</td></tr> <tr><td>Enclosure Protection</td><td>IP67</td></tr> <tr><td>Cell Type - Chemistry</td><td>Cylindrical - LiFePO4</td></tr> </tbody> </table> <p>CHARGE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Recommended Charge Current</td><td>10A</td></tr> <tr><td>Maximum Charge Current</td><td>50A</td></tr> <tr><td>Charge Current 14 to 32 °F (-10 to 0 °C)</td><td>$\leq 0.03 \text{ C}$</td></tr> <tr><td>Charge Current -4 to 14 °F (-20 to -10 °C)</td><td>$\leq 0.02 \text{ C}$</td></tr> <tr><td>Recommended Charge Voltage</td><td>14.2 V - 14.6 V</td></tr> <tr><td>BMS Charge Voltage Cut-Off</td><td>15V (3.75 \pm 0.05 vpc) (1.5 \pm 1.0 s)</td></tr> <tr><td>Reconnect Voltage</td><td>14.4V (3.6 \pm 0.05 vpc)</td></tr> <tr><td>Balancing Voltage</td><td>14.2V (3.55 \pm 0.05 vpc)</td></tr> </tbody> </table> <p>COMPLIANCE SPECIFICATIONS</p> <table border="1"> <tbody> <tr><td>Certifications</td><td>UN 38.3 & CE (BATTERY) UL1642 (CELLS) (FILE# MH64443) IEC62133 (CELLS)</td></tr> <tr><td>Shipping Classification</td><td>UN 3480, CLASS 9</td></tr> </tbody> </table> <p>DIMENSIONAL SPECIFICATIONS</p>  </div> <p>https://assets.basspro.com/image/upload/v1684850673/PDFs/other/other_Tracker_Lithium_Gen2_Spec_Sheet.pdf (annotated).</p>	Nominal Voltage	12.8V	Nominal Capacity	52Ah	Capacity @ 25A	156 min	Resistance	$\leq 30 \text{ m}\Omega$ @ 50% SOC	Efficiency	99%	Self Discharge	<3% per Month	Maximum Modules in Series	4	Maximum Continuous Discharge Current	60A	Peak Discharge Current	200A (2s)	BMS Discharge Current Cut-Off	200A \pm 50A (2 \pm 1 ms)	Recommended Low Voltage Disconnect	10V	BMS Discharge Voltage Cut-Off	9.2V (2.3 \pm 0.1 vpc) (2 \pm 0.5s)	Reconnect Voltage	10V (2.5 \pm 0.1 vpc) (2 \pm 0.5s)	Short Circuit Protection	200-800 μ A	Discharge Temperature	-4 to 140 °F (-20 to 60 °C)	Charge Temperature	-4 to 113 °F (-20 to 45 °C)	Storage Temperature	23 to 95 °F (-5 to 35 °C)	BMS High Temperature Cut-Off	167 °F (75 °C)	Reconnect Temperature	122 °F (50 °C)	Dimensions (L x W x H)	7.75 X 5.27 X 6.69" 197 X 134 X 170 MM	Weight	15.7 lbs (7.1 kg)	Terminal Type	M8 x 1.25 x 2mm	Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)	Case Material	ABS	Enclosure Protection	IP67	Cell Type - Chemistry	Cylindrical - LiFePO4	Recommended Charge Current	10A	Maximum Charge Current	50A	Charge Current 14 to 32 °F (-10 to 0 °C)	$\leq 0.03 \text{ C}$	Charge Current -4 to 14 °F (-20 to -10 °C)	$\leq 0.02 \text{ C}$	Recommended Charge Voltage	14.2 V - 14.6 V	BMS Charge Voltage Cut-Off	15V (3.75 \pm 0.05 vpc) (1.5 \pm 1.0 s)	Reconnect Voltage	14.4V (3.6 \pm 0.05 vpc)	Balancing Voltage	14.2V (3.55 \pm 0.05 vpc)	Certifications	UN 38.3 & CE (BATTERY) UL1642 (CELLS) (FILE# MH64443) IEC62133 (CELLS)	Shipping Classification	UN 3480, CLASS 9
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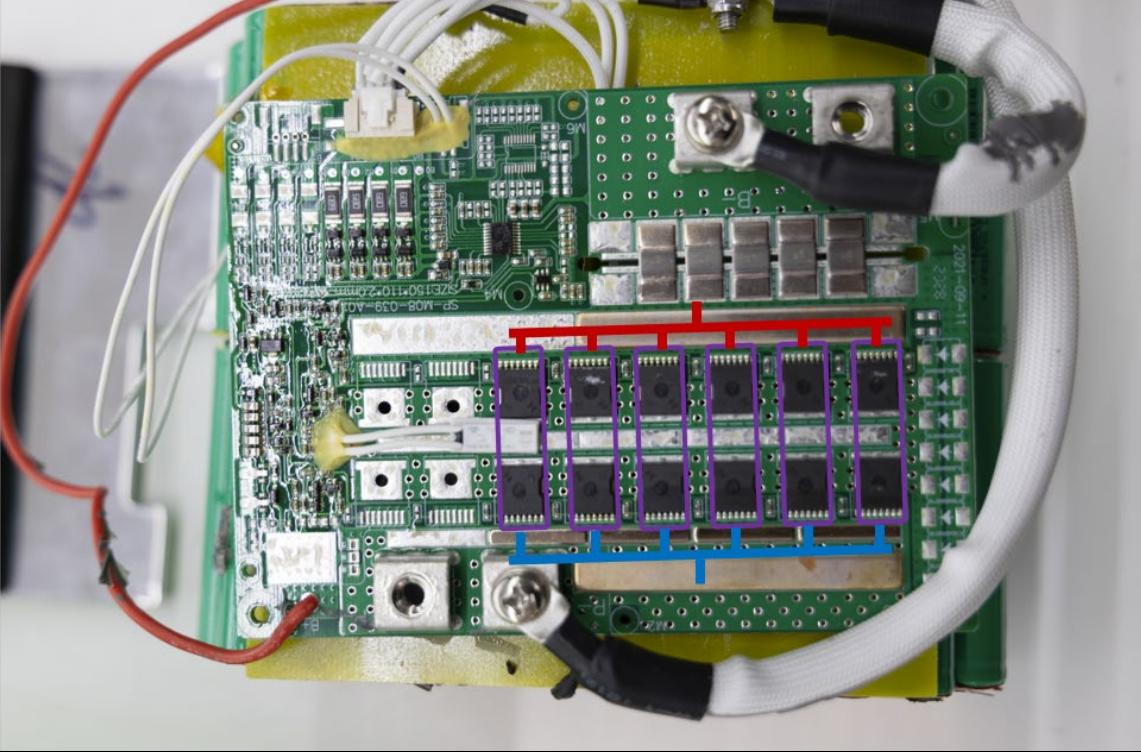
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>For example, as demonstrated by connecting the battery terminals of the Tracker Lithium Gen2 12.8V 52AH to a computerized battery analyzer (see photo A below), the cutoff functionality is demonstrated by the termination of electrical current when the Tracker Lithium Gen2 12.8V 52AH was discharged below its rated voltage (see photo B below). Similarly, the cutoff functionality is also demonstrated by the termination of electrical current when the Tracker Lithium Gen2 12.8V 52AH was charged above its rated voltage (see photo C below).</p> <p data-bbox="551 360 614 409">A</p> 

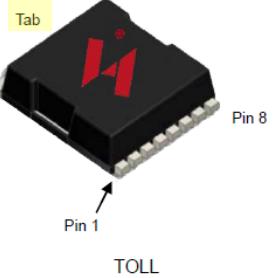
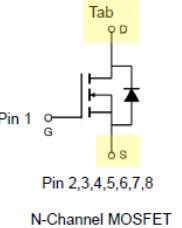


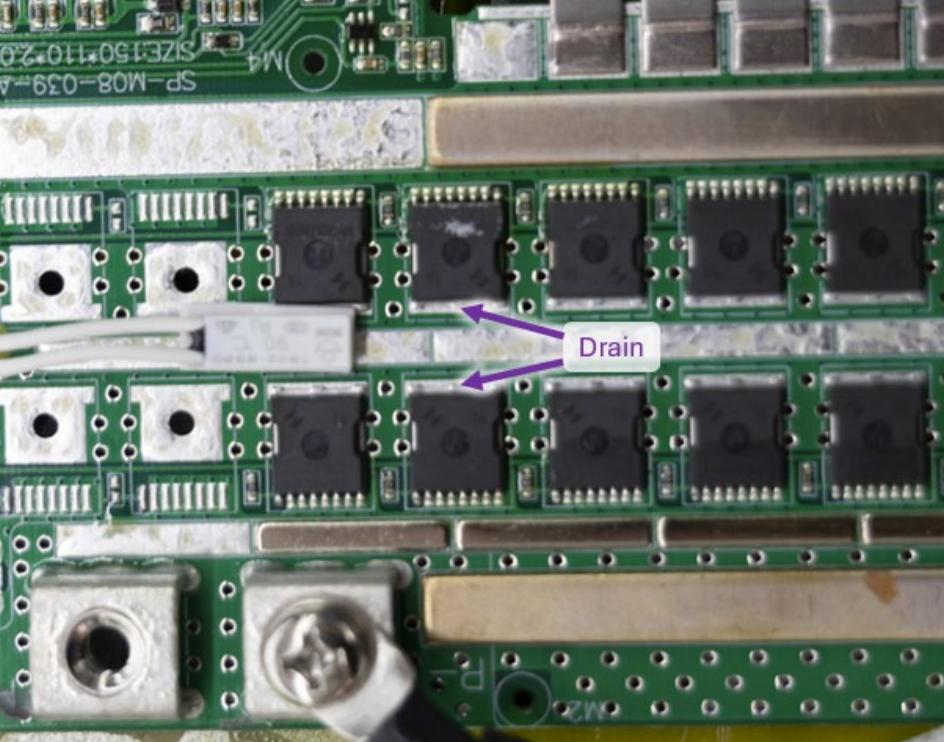
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[14c-ii]</p> <p>said circuit board including a plurality of pairs of solid state switches with each pair of solid state switches connected in a parallel configuration to another pair of solid state switches,</p>	<p>The circuit board of the Tracker Lithium Gen2 12.8V 52AH includes a plurality of pairs of solid state switches with each pair of solid state switches connected in a parallel configuration to another pair of solid state switches.</p> 

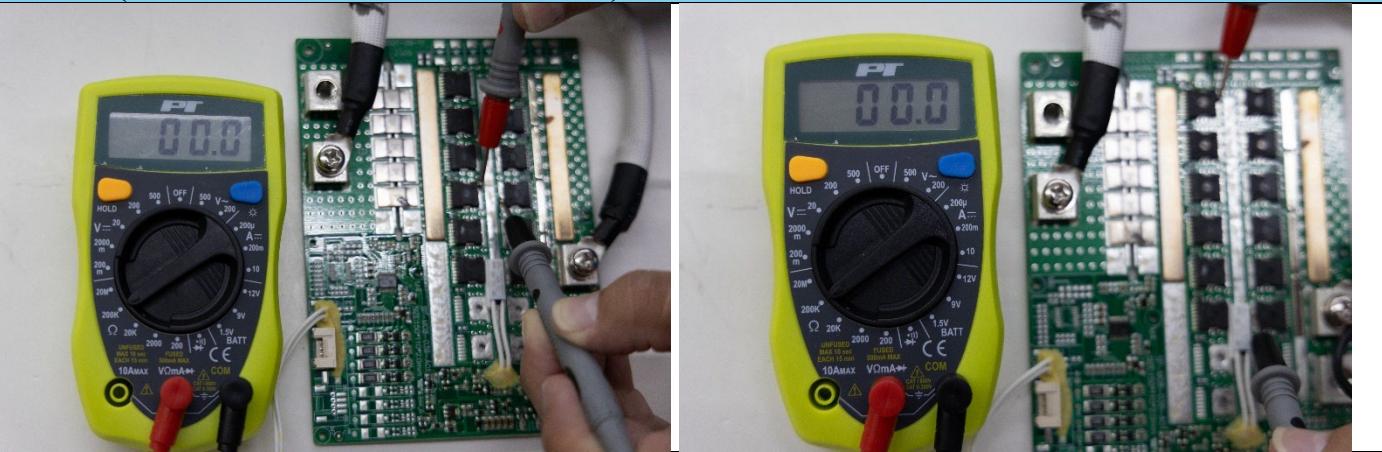
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>HYG015N10NS1TA</p> <p>N-Channel Enhancement Mode MOSFET</p> <p>Feature</p> <ul style="list-style-type: none"> • 100V/380A • $R_{DS(ON)}=1.2\text{ m}\Omega(\text{typ.}) @ V_{GS} = 10V$ • 100% Avalanche Tested • Reliable and Rugged • Halogen-Free Devices Available (RoHS Compliant) <p>Pin Description</p>  <p>Tab Pin 8 Pin 1 TOLL</p> <p>Applications</p> <ul style="list-style-type: none"> • Switching application • Power management for inverter systems • Battery management  <p>Tab Pin 1 G Pin 2,3,4,5,6,7,8 D S N-Channel MOSFET</p> <p>Huayi-HYG015N10NS1TA datasheet.pdf (annotated).</p> <p>Each pair of the plurality of pairs of solid state switches (e.g., 4i-4vi) of the Tracker Lithium Gen2 12.8V 52AH are connected in a parallel configuration to another pair of solid state switches.</p>

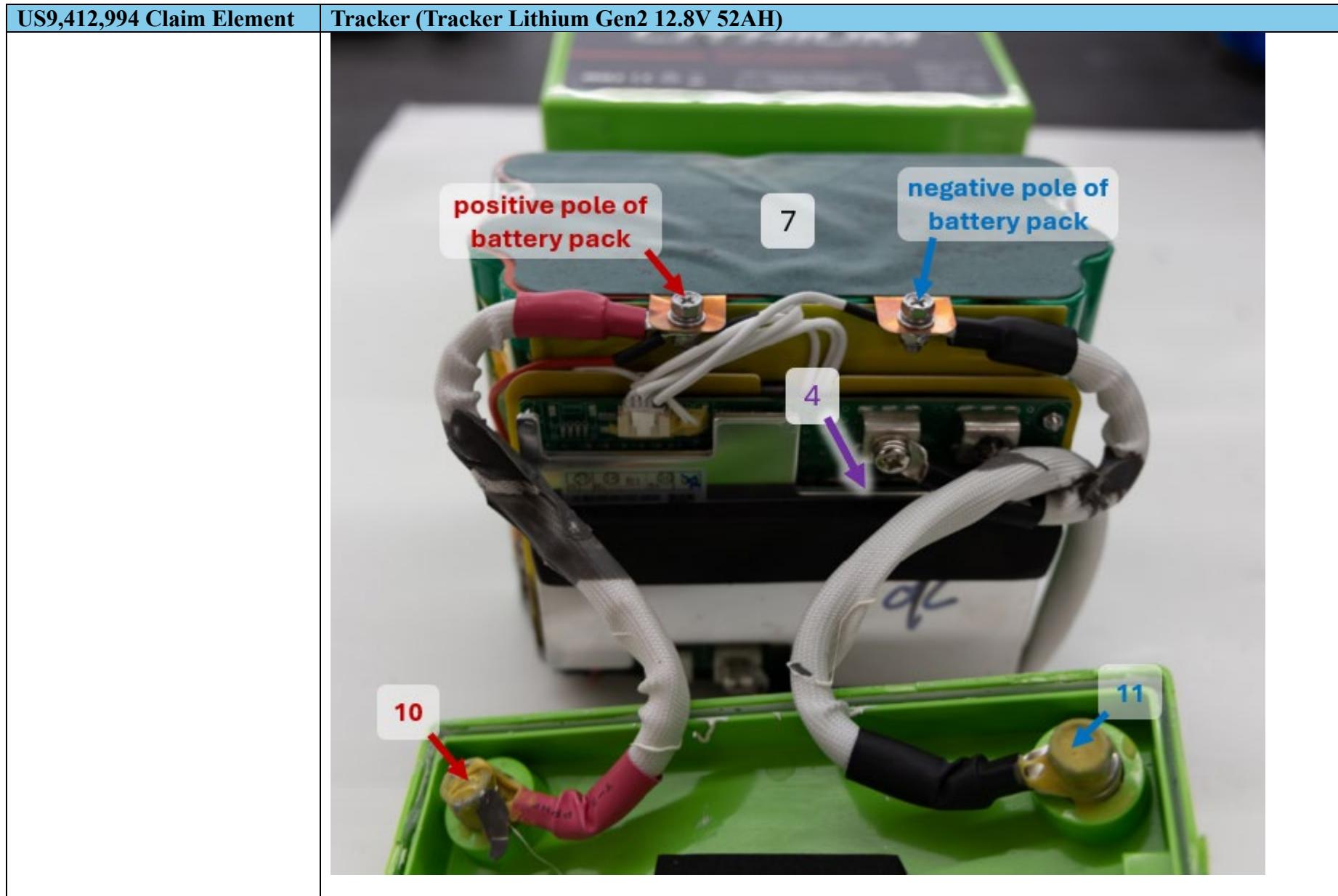
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)

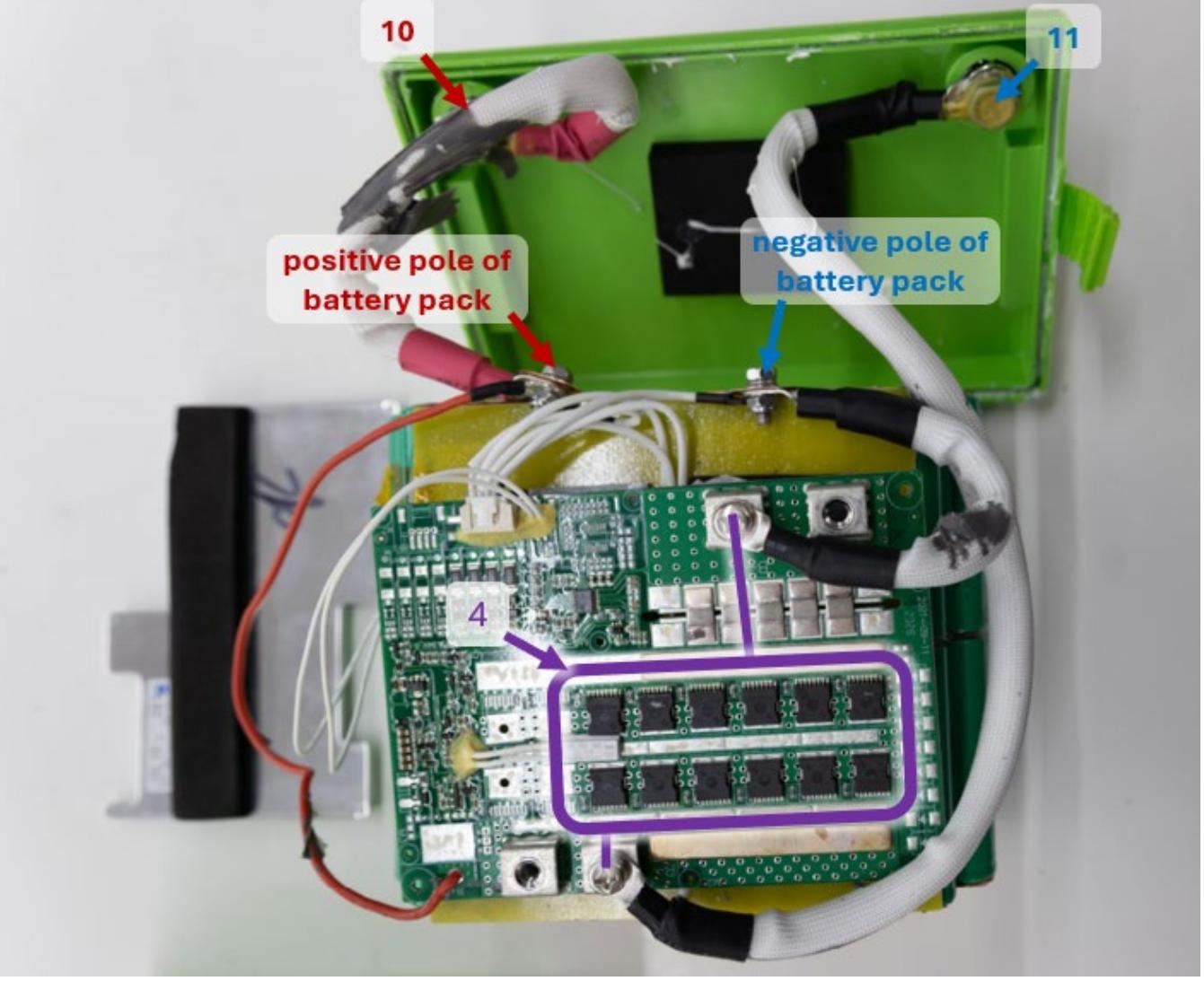
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[14c-iii] each switch having a source and a drain, the switches of a pair of solid state switchers being configured such that either the drains of the switches are connected or the sources of the switches are connected; and</p>	

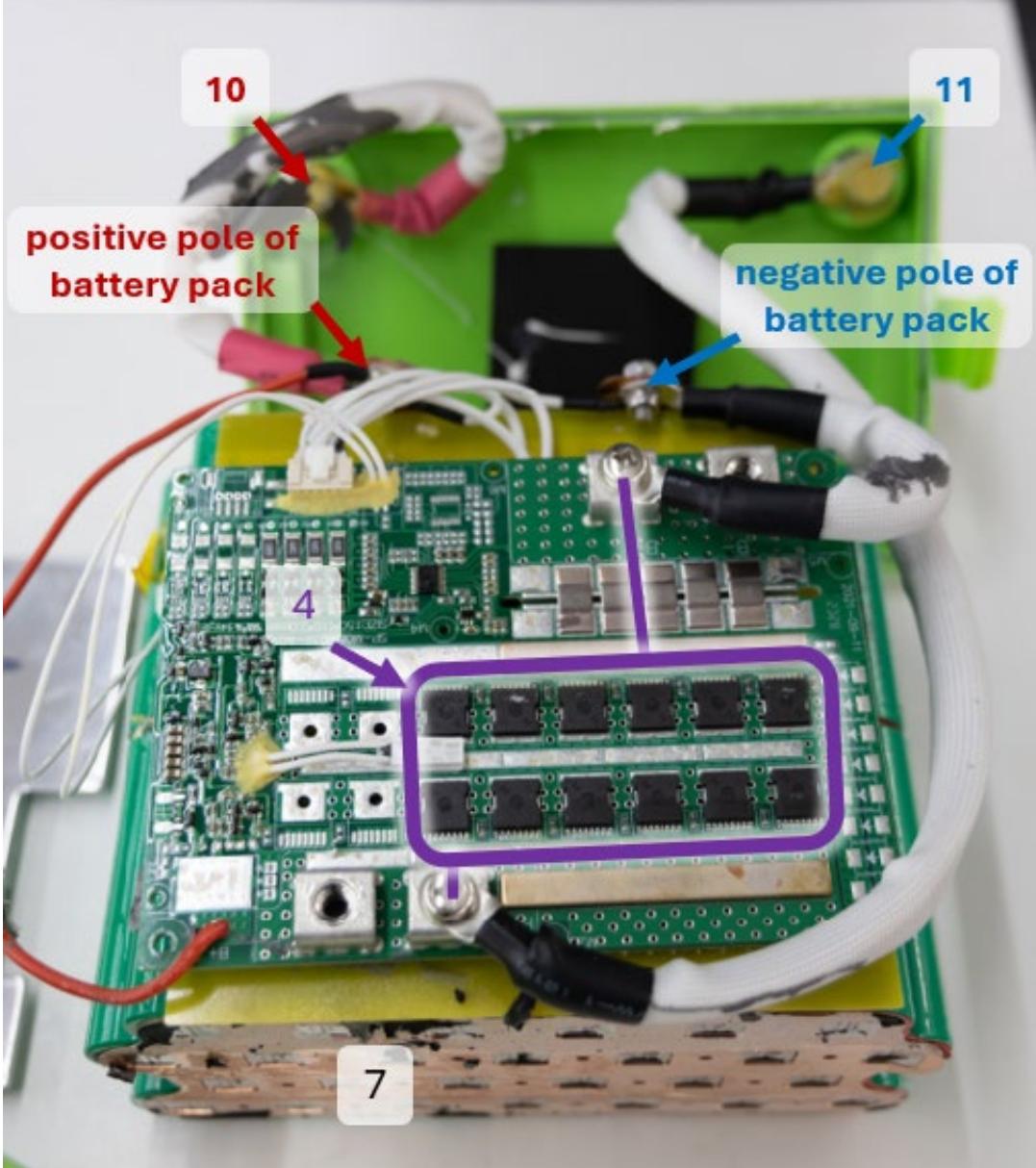
US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	<p>HYG015N10NS1TA</p> <p>N-Channel Enhancement Mode MOSFET</p> <p>Feature</p> <ul style="list-style-type: none"> • 100V/380A • $R_{DS(ON)}=1.2\text{ m}\Omega(\text{typ.}) @ V_{GS} = 10V$ • 100% Avalanche Tested • Reliable and Rugged • Halogen-Free Devices Available (RoHS Compliant) <p>Pin Description</p>  <p>Applications</p> <ul style="list-style-type: none"> • Switching application • Power management for inverter systems • Battery management  <p>Huayi-HYG015N10NS1TA datasheet.pdf (annotated).</p> <p>The switches of a pair of solid state switches of the Tracker Lithium Gen2 12.8V 52AH are configured such that the drains of the switches are connected.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="551 923 1860 1029">For example, as demonstrated by testing the electrical continuity using a multimeter, the drains of the switches of the Tracker Lithium Gen2 12.8V 52AH are connected, as shown by the nominal resistance measured between the drains of opposed MOSFETs.</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
<p>[14d] said parallel configuration of the plurality of solid state switches being connected in series with said one or more cells between said positive and negative terminals of the battery pack.</p>	 <p>The Tracker Lithium Gen2 12.8V 52AH includes said parallel configuration of the plurality of solid state switches (4) being connected in series with said one or more cells (7) between said positive (10) and negative terminals (11) of the battery pack.</p>



US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="551 148 1892 1241">The photograph shows a green plastic housing containing a green printed circuit board (PCB). A purple arrow points to a component labeled '4' which is a rectangular array of small black cells, likely a battery cell. A red arrow points to the 'positive pole of battery pack' (labeled '10') and a blue arrow points to the 'negative pole of battery pack' (labeled '11').</p>

US9,412,994 Claim Element	Tracker (Tracker Lithium Gen2 12.8V 52AH)
	 <p data-bbox="572 372 846 453">positive pole of battery pack</p> <p data-bbox="1290 393 1586 474">negative pole of battery pack</p> <p data-bbox="846 736 868 768">4</p> <p data-bbox="910 1241 931 1274">7</p> <p data-bbox="751 213 794 246">10</p> <p data-bbox="1501 213 1543 246">11</p>